The Journal of the American Medical Association

Published Under the Auspices of the Board of Trustees

VOL. 143, No. 17 — CHICAGO, ILLINOIS — AUGUST 26, 1950

COPYRIGHT, 1950, BY AMERICAN MEDICAL ASSOCIATION

CHLORAMPHENICOL (CHLOROMYCETIN®) THERAPY IN SHIGELLA ENTERITIS

SIDNEY ROSS, M.D.
FREDERIC G. BURKE, M.D.
E. CLARENCE RICE, M.D.
JOHN A. WASHINGTON, M.D.
and
SARA STEVENS, B.S.
Washington, D. C.

The in vitro bacteriostatic effect of sulfonamides against organisms of the genus Shigella together with the clinical efficacy of the drug in this disease has been amply demonstrated.[1] The soluble, easily absorbed sulfonamides such as sulfadiazine have been shown to be superior to the enteric preparations such as succinylsulfathiazole (sulfasuxidine®) and sulfaguanidine.[1] However, the limiting factors in the routine employment of sulfadiazine in shigellosis include: (1) the not infrequent appearance of sulfonamide-resistant strains of Shigella organisms, (2) the occasional patient with a sensitivity to sulfonamide and (3) the possible hazard of administering sulfadiazine to dehydrated patients in the tropical areas where the disease has its greatest endemic concentration.

Therefore, the search continues for a drug with the activity of sulfadiazine against Shigella organisms but lacking its undesirable effects. Penicillin has been found to be of no value. We recently reported on the efficacy of oral administration of polymyxin B (aerosporin®) in 16 cases[2] and streptomycin administered orally in 34 cases[3] and found that they were both effective agents in enteritis due to Shigella.

With the advent of chloramphenicol (chloromycetin®) and the demonstration of the in vitro susceptibility of various strains of Shigella to this agent, it was considered of some interest to evaluate the drug in the treatment of enteritis due to Shigella. During the past year, we have had the opportunity of treating 35 patients with enteritis due to Shigella with chloramphenicol. This report deals with the clinical and bacteriologic observations made in this series.

The patients ranged in age from 3 months to 7 years, 10 of them being under 1 year of age. The illness was regarded as mild in 8 cases, moderate in 14, severe in 10 and critical in 3. Stool culture revealed Shigella sonnei to be the specific causative organism in 33 cases and Shigella of Flexner in 2. In each patient, a test to determine sensitivity to chloramphenicol was performed on the isolated organism; in four instances, the sensitivity was 2 micrograms per cubic centimeter, whereas in 31 cases, it was 5 micrograms per cubic centimeter. The duration of the disease prior to institution of chloramphenicol therapy ranged from 1 to 16 days with an average of 4.3 days.

At least 2 positive cultures were obtained for each patient before therapy was started. During treatment, daily stool cultures were obtained until the patient was discharged from the hospital. Stool culture mediums included Shigella-Salmonella (SS) agar, desoxycholate citrate agar and tetrathionate broth. Of the three, the SS agar medium proved to be the most sensitive in the isolation of Shigellae. The rectal swab technic was employed routinely, and all stool cultures were seeded simultaneously at the bedside on these three mediums. A total of 278 stool cultures were obtained in this series (an average of 12 per patient). It is well to emphasize the importance of performing more than one stool culture in an attempt to make a diagnosis of enteritis due to Shigella since in approximately 10 per cent of our cases the initial stool culture was negative whereas a second culture was positive for the Shigella organism. In this regard we routinely obtain 3 consecutive daily stool cultures from all infants and children admitted to the diarrhea ward at Children's Hospital. Only if all three cultures showed no pathogens are the patients considered to have a nonspecific diarrhea and managed as such.

The average dose of chloramphenicol employed in this series was 250 mg. every four hours. The duration of treatment ranged from 6 to 11 days with an average of 8.6 days per patient. The total dose varied from 7.2 to 16.2 Gm. of chloramphenicol, the average being 11.5 Gm. per patient.

RESULTS

In 33 of the 35 patients, the stool cultures became negative in twelve to thirty-six hours after initiation of chloramphenicol therapy. In the 2 remaining cases, the stool cultures continued positive for forty-eight hours in one patient and six days in the other. In the latter patient, a relapse was observed and a recurrence of positive cultures was noted eight days after discharge from the hospital. He was subsequently retreated with chloramphenicol, 500 mg. every four hours for ten days, and made an uneventful recovery with persistently negative stool cultures. An average of 8 negative stool cultures was obtained for each patient before he was considered cured. Once the stool culture became negative, no cultural reversals were noted during the hospital stay.

From the Research Foundation, Children's Hospital, Washington, D. C. Chloramphenicol was supplied by the Parke, Davis Company, Detroit.

This study was supported by a grant from the Antibiotic Study Section of the Division of Research Grants and Fellowships, National Institutes of Health, United States Public Health Service.

1. Bacillary Dysentery, War Department Technical Bulletin, War Med. 7: 36 (Jan.) 1945.

2. Ross, S.; Burke, F. G.; Rice, E. C.; Bischoff, H., and Washington, J. A.: The Use of Aerosporin in Specific and Non-Specific Enteritis in Infants and Children, M. Ann. District of Columbia **18**: 441, 1949.

3. Ross, S.; Burke, F. G.; Rice, E. C.; Bischoff, H., and Washington, J. A.: Treatment of Shigella Enteritis with Oral Streptomycin, J. A. M. A. **141**: 183 (Sept. 17) 1949.

The clinical subsidence of the disease was commensurate with the favorable effect observed bacteriologically, and the patients usually showed considerable improvement within twenty-four hours after therapy was started. In only a few patients, particularly in the infant age group, was extensive adjuvant fluid therapy required in view of the rapid response clinically, together with the patient's ability to take oral feedings within a relatively short time after therapy was started. The diarrhea usually subsided within three days, and an uneventful recovery ensued in all 35 patients.

SIDE REACTIONS TO CHLORAMPHENICOL

The oral administration of chloramphenicol presented a practical problem in a number of patients, since only in the older age group was it possible to administer the intact capsule. For the infants and younger children in this series, it was necessary to empty the powdered contents of the capsule and, in view of the extreme bitterness of the drug, to mix it in different palatable vehicles, such as syrup of eriodictyon, chocolate milk, chocolate syrup, cherry syrup and applesauce. Our experience in this regard indicated that mixing the drug with syrup of eriodictyon and then following it with chocolate milk was perhaps the most acceptable method of administration in smaller children.

In 7 of the patients in this series (6 of whom were under 1 year of age) the drug was refused in spite of all efforts to disguise the unpleasant taste, and it had to be virtually forced. In 5 patients, vomiting followed administration of the drug; the latter symptom occurred more frequently in those patients who required forcing of the medication. In 12 infants, chiefly in the age group under 2 years, anorexia was observed during the period of chloramphenicol administration. This was transitory, and the appetite returned to normal promptly after discontinuation of treatment with the drug.

In 4 of the female patients, some degree of vulvovaginitis was noted in four to seven days after chloramphenicol was started. This usually cleared up shortly after treatment with the drug was discontinued. No other untoward effects from the drug were observed.

COMMENT

During the past two years, we have treated 61 patients with acute enteritis due to Shigella with various drugs in a carefully controlled study. Of these, 20 patients received sulfadiazine, 25 received streptomycin orally and 16 polymyxin B orally. It is of some interest to compare the efficacy of these three drugs with the results obtained in the present series of 35 patients treated with chloramphenicol. All patients were managed in the same fashion, and each was followed with daily stool cultures during the course of therapy. Employing the rapidity of disappearance of the pathogen from the stool as a therapeutic index of the effectiveness of each drug, we found that all four drugs produced a prompt disappearance of the Shigella organism two days or less after the initiation of therapy. The average interval for chloramphenicol therapy was 0.76 days, for streptomycin 1.6 days, for polymyxin B 1.9 days and for sulfadiazine 2.0 days. This slight variation was not considered statistically significant. In 2 patients in the group treated with polymyxin B and in 1 patient in the group treated with sulfadiazine, the stool cultures showed the continued presence of Shigella organisms; all 3 patients were subsequently retreated with streptomycin, which resulted in a prompt clearing of the pathogen from the intestinal tract. Of the 25 patients treated with streptomycin and the 35 patients who received chloramphenicol, none showed any refractoriness to these two drugs during the hospital stay, and in no instance was it necessary to substitute any other therapeutic agent.

One can conclude from this study that sulfadiazine, polymyxin B, streptomycin and chloramphenicol all possess a high degree of bactericidal specificity against Shigella organisms, and each drug is capable of producing prompt cure in patients with bacillary dysentery. At the present writing, one cannot make any categoric statement as to which of these would be the drug of choice. However, it is of some importance to know that there are now four effective therapeutic agents for the treatment of shigellosis instead of only the sulfonamide drugs.[4] This allows for substitution of one medication for another both in cases in which drug sensitivity is manifested and in cases in which resistant strains of organisms have appeared.

SUMMARY

Thirty-five patients with enteritis due to Shigella were treated with chloramphenicol (chloromycetin®). In all cases but one a prompt disappearance of the pathogen from the stool followed the initiation of chloramphenicol therapy. Clinically the improvement was commensurate with the salutary effects observed bacteriologically. Oral treatment with chloramphenicol is compared with oral treatment with streptomycin, polymyxin B (aerosporin®) and sulfadiazine in the treatment of 96 patients with bacillary dysentery caused by Shigella. Results indicate that all four drugs are effective agents.

MESANTOIN® IN EPILEPSY

Report of 80 Cases

NICHOLAS A. BERCEL, M.D.
BENJAMIN FINESILVER, M.D.
PHILIP SOLOMON, M.D.
ESTHER SOMERFELD-ZISKIND, M.D.
and
EUGENE ZISKIND, M.D.
Los Angeles

Mesantoin® (3-methyl 5, 5-phenylethylhydantoin)[1] is one of the newer drugs for epilepsy. Reports in the last few years have revealed its definite value [2] though toxic complications have been pointed out.[3] In the present study, the types of attacks responding best to mesantoin® therapy are determined and suggestions for diminishing complications are made.

---

4. We have recently employed aureomycin in 8 cases of shigellosis and have found this drug to be similarly effective. However, insufficient time has elapsed for follow-up purposes to define the limits within which salutary results may be expected.

From the Department of Neuropsychiatry, Cedars of Lebanon Hospital, Los Angeles.

1. Supplied by Sandoz Chemical Works, Inc., through Mr. Harry Althouse.

2. (*a*) Loscalzo, A. E.: Treatment of Epileptic Patients with a Combination of 3-Methyl 5, 5-Phenyl-Ethyl Hydantoin and Phenobarbital, J. Nerv. & Ment. Dis. **101**: 537 (June) 1945. (*b*) Kozol, H. L.: Epilepsy: Treatment with New Drug; 3-Methyl 5, 5-Phenyl-Ethyl Hydantoin, Am. J. Psychiat. **103**: 154 (Sept.) 1946. (*c*) Lennox, W. G.: Newer Agents in the Treatment of Epilepsy, J. Pediat. **29**: 356 (Sept.) 1946. (*d*) Boller, W.: Hydantoinkörper in der Epilepsiebehandlung, Schweiz. med. Wchnschr. **73**: 699 (May 22) 1943. (*e*) Fetterman, J. L., and Friedman, M. D.: Mesantoin in the Treatment of Epilepsy: Preliminary Report, Ohio State M. J. **43**: 12 (Dec.) 1947. (*f*) Kozol, H. L.: The Treatment of Epilepsy with Methyl-Phenyl-Ethyl-Hydantoin (Mesantoin), A. Research Nerv. & Ment. Dis., Proc. **26**: 404, 1947. (*g*) Aird, R. B.: The Treatment of Epilepsy with Methylphenylethyl Hydantoin (Mesantoin), Calif. & West. Med. **68**: 141 (March) 1948. (*h*) David, N. A.; Durkin, L. S.; Margason, M. L., and Viele, W. A.: Methyl Hydantoin (Mesantoin) in the Treatment of Epilepsy, J. Nerv. & Ment. Dis. **108**: 118 (Aug.) 1948.

3. (*a*) Boller.[2d] (*b*) Harrison, F. F.; Johnson, R. D., and Ayer, D.: Fatal Aplastic Anemia Following Use of Tridione and Hydantoin, J. A. M. A. **132**: 11 (Sept. 7) 1946. (*c*) Bloom, N.; Lynch, J. P., and Brick, H.: "Mesantoin" Poisoning with Aplastic Anemia and Recovery, J. A. M. A. **138**: 498 (Oct. 16) 1948. (*d*) Frank, C. W., and Holland, J. F.: Pancytopenia from Mesantoin, J. A. M. A. **138**: 1148 (Dec. 18) 1948.

We have avoided the limitations of selective methods of approach by taking consecutive convulsive cases of all types, with duration of illness ranging from one to thirty-seven years, by giving the drug alone and in combination to some patients who had not previously been treated, to others who had been treated intensively by various drugs and to still others who were refractory to or unable to tolerate medications given. We tried to find out (1) whether the previous medication could be improved on by adding or substituting mesantoin® (completely or partially) and (2) whether toxic effects from previous medication could be eliminated or decreased.

MATERIAL

Eighty patients were treated with mesantoin® in private practice and in the Epilepsy Clinic for two years ending April 1949, at which time the majority of them were still receiving the medicament. Eight cases were lost in the follow-up study. There were 44 female and 36 male subjects, their ages ranging from 3 to 62 years. In each case complete medical-neurologic examination was routinely done, along with urinalysis, blood cell count, determination of sedimentation rate, Wassermann test, roentgenograms of the skull, spinal fluid test and electroencephalography, with pneumoencephalography when indicated. Fifty-nine of the patients were first-born children. These were about equally distributed in the symptomatic and idiopathic groups. Of the former, 11 were traumatic, 4 encephalitic and 2 neoplastic. In 63 cases the etiology could not be determined.

Of the total, 32 patients received mesantoin® alone, with an average dose of six 0.1 Gm. tablets. The remaining 48 received other medication with it, the average dose of mesantoin® here being only 4 tablets. The daily dose of mesantoin® ranged from 0.1 to 1.3 Gm.

RESULTS

In table 1 are shown monthly seizure averages in a six month minimum period before and after treatment. Seizures of every type were reduced.

Complete control occurred in the 5 patients with jacksonian seizures. The reduction in monthly grand mal incidence was 77 per cent greater than with previous treatment. The total petit mal attacks per month was reduced 65 per cent, the greatest effect being when there was admixture with grand mal. Psychomotor spells in combination with other types were reduced 62 per cent, whereas in the purely psychomotor group, spells actually increased with administration of mesantoin.®

Better results were obtained in patients with more than one type of seizure whether mesantoin® was used alone or in combination with other drugs. This obtains for patients with grand mal or jacksonian seizures exclusively. In those with petit mal seizures exclusively, the addition of trimethadione (tridione®) enhanced the value of mesantoin.®

Comparison of statistics gathered at six months and at two years confirmed the constancy and reliability of the epileptic patient's response to mesantoin® therapy.

COMMENT

A peculiarity mentioned by Boller [2d] and noted by one of us (N. A. B.) is that beyond a certain limit mesantoin® therapy is likely to fail to eliminate persisting seizures, whereas with phenobarbital one can expect eventually to eliminate all seizures merely by increasing the dosage. This is not so with mesantoin.® For instance, for a patient averaging twenty to thirty grand mal seizures per month, progressive doses of phenobarbital up to 0.7 Gm. daily finally completely controlled the attacks. However, because of extreme mental dulness, he was given mesantoin,® 0.6 Gm. of which reduced the seizure incidence to four per month. No further reduction occurred, although mesantoin® was progressively increased to 1.3 Gm. a day, at which point the patient had the same mental retardation as with phenobarbital; he took no interest in anything and would fall asleep standing up.

Not only is mesantoin® therapy effective in further reducing the incidence of seizures when other medications have not been adequate, but also it can frequently be well tolerated in patients who show signs of intolerance to diphenyl-hydantoin sodium (dilantin®) and phenobarbital. On the other hand, 4 of 8 patients with idiosyncrasy to mesantoin® responded well to hydantoin sodium therapy when mesantoin® was discontinued.

TABLE 1.—*Average Number of Attacks per Month per Patient*

Type of Epilepsy	No. of Cases	Type and Number of Attacks: Without Medication J	GM	PM	Psycho.	With Other Medication J	GM	PM	Psycho.	With Mesantoin* † Therapy J	GM	PM	Psycho.
Jacksonsian (J)	5	31	..	..	..	1	..	..	..	0	..	..	..
Grand mal (GM)	28	..	9	..	..	..	2	..	..	..	1	..	..
Petit mal (PM)	6	..	..	65	..	..	..	59	..	..	..	39	..
Psychomotor (Psycho.)	5	..	..	..	8	..	..	..	4	..	..	..	6
Grand mal, petit mal	18	..	8	40	..	..	5	18	..	..	1	5	..
Grand mal, petit mal, psychomotor	8	..	8	59	6	..	5	30	4	..	1/4‡	1/2‡	2
Grand mal, psychomotor	1	..	3	..	3	..	3	..	0	..	0	..	0
Petit mal, psychomotor	1	..	..	182	52	..	..	41	53	..	..	40	50
Total	72	31	28	326	69	1	15	148	61	0	2	85	58

* Registered trade mark.
† Alone or with other drugs.
‡ An average of 1/8 grand mal attack per month per patient (1 attack per month per 8 patients). Also, an average of 1/2 petit mal attack per month per patient (4 attacks per month per 8 patients).

TOXIC REACTIONS

The instances of toxic effect in our series are undoubtedly more numerous than in routine practice. Two factors contributed to this: First, the drug was given to patients who were already toxic from massive doses of other medication. Second, the amount of mesantoin® administered was increased to the point of intolerance in each case when therapeutic control was not complete. We were not initially aware of the fact that toxicity could be largely avoided by a more gradual increase of dosage.

The most significant toxic effects were hematologic (table 2). In 1 patient the white blood cell count

decreased to 2,200, with only 29 per cent polymorphonuclear cells, at which point mesantoin® therapy was discontinued. In 2 other patients granulocytopenia was accompanied by fever and sore throat. In one of these, temporary discontinuance of mesantoin® therapy for one week eliminated the complication; in the second, several repetitions of this symptom complex with readministration of mesantoin® necessitated abandonment of the drug. Leukopenia with cervical lymphadenopathy occurred in 2 more patients, and here again mesantoin® therapy had to be discontinued. A sixth patient with leukopenia and patchy dark granulation over the tonsil necessitated withdrawal also, and for several months the white blood cell count failed to rise above 3,900. Cervical lymph gland enlargement developed in 3 other patients, in one to the size of a goose egg, with recession and reduplication respectively on withdrawal and readministration of mesantoin.®

Of the 6 patients who had a morbilliform rash of the hands and feet, at times extending to the flexor surfaces of the limbs, decreased dosage in 2 patients and withdrawal for one week in 2 patients served to terminate this complication. One patient, however, proved refractory to these manipulations, and the drug was finally withdrawn.

Nine patients complained of drowsiness. In 3, this was alleviated by reduction of dosage with concomitant use of *d*-amphetamine sulfate (dexedrine®), but in a fourth, withdrawal seemed advisable. Withdrawal was necessary in only 1 of the 2 patients with transient diplopia. Other minor complaints, such as constipation, weight loss, transient urticaria, sexual weakness, nystagmus and ataxia, disappeared in time.

TABLE 2.—*Toxic Reactions in 72 Cases*

Reaction	Number of Cases
Leukopenia	1
Leukopenia, fever, sore throat	2
Leukopenia, lymphadenopathy	3
Cervical lymphadenopathy	3
Morbilliform rash	6
Drowsiness	9
Transient diplopia	2

One death occurred suddenly in poorly known circumstances in a 10 year old boy treated with mesantoin.® Because at one time or another he showed mild leukopenia after taking trimethadione and again later when taking mesantoin,® drug toxicity was considered as the possible cause of death. However, there were no definite clues at necropsy.

The majority of toxic manifestations occurred during the first month of administration, rarely after the third. Then reports in the literature [4] confirmed our own impression that starting treatment with the drug in slowly rising doses would decrease the incidence of toxicity. It is uncommon to encounter toxic effects until one reaches the upper limits of dosage tolerance (0.6 to 1.0 Gm. daily), provided the dose is increased gradually over the first one to three months. With this modification, one of us (N. A. B.) saw nothing more than occasional transient drowsiness in the last 15 consecutive patients. Mesantoin® therapy thus does not appear to be more toxic than other anticonvulsants.

Belinson [5] recently used four gradually increasing dosage scales of mesantoin® administration in 176 patients and found toxic reactions in only 5 per cent. They occurred especially when mesantoin® dosage was increased as rapidly as 1 tablet per week or in patients who started out with 4 to 6 tablets daily.

In view of the high incidence of hematologic side effects in this series (15 per cent), one of us (E. S.-Z.) has routinely utilized monthly blood cell counts as a safeguard.

4. Boller.[4a] Fetterman and Friedman,[4b] Harrison, Johnson and Ayer.[4b]
5. Belinson, L.: Incidence of Sensitivity to Mesantoin: Effect of Dosage, Dis. Nerv. System **9**: 8 (Aug.) 1948.

SUMMARY

1. The anticonvulsant effect of mesantoin® (3-methyl 5, 5-phenylethylhydantoin) has been amply demonstrated since it decidedly reduced the number of seizures in patients not responding to other medication.

2. In some cases in which toxic symptoms necessitated discontinuation of previous medication, mesantoin® therapy was tolerated and effective, and in some cases of mesantoin® intolerance to hydantoin sodium (dilantin®) and phenobarbital were tolerated and effective.

3. Toxic effects may occur with mesantoin® particularly when used beyond tolerance or when added to other heavy anticonvulsant medication.

4. The most serious toxic effects were hematologic. It is questionable whether they are greater than with hydantoin sodium or trimethadione (tridione®).

5. More gradual administration will probably reduce toxic complications.

6. Mesantoin® is worthy of trial as the sole or primary anticonvulsant in order to permit comparative evaluation with the older anticonvulsants, such as phenobarbital and hydantoin sodium. As an adjunct to therapy in refractory cases, its position is already established.

USE OF ERGOT PREPARATIONS IN MIGRAINE

MARVIN FUCHS, M.D.
and
LESTER S. BLUMENTHAL, M.D.
Washington, D. C.

It is most commonly stated, and as recently as 1948,[1] that no instance of ergotism has occurred in persons receiving ergotamine tartrate for migraine. That patients with migraine are usually resistant to deleterious effects of ergot is certainly substantiated by numerous instances of patients' taking large doses without harm. Von Storch [2] reports a patient taking ergotamine tartrate (gynergen®) once a week for five years, Moench [3] refers to 2 patients taking 0.25 mg. of ergotamine tartrate daily for four and seven years, and we [4] have knowledge of a patient taking 0.75 mg. (1.5 cc. in divided doses) daily for eight years with a two year symptom-free interval.

Disquieting reports,[5] however, are heard, particularly of late, of the toxicity of ergot in the treatment of periodic headache. The failure to establish the diagnosis prior to therapy in the first two reports,[5a, b] a

From the Headache Clinic, George Washington University Hospital, Washington, D. C.
Both authors are clinical instructors in medicine at the George Washington University School of Medicine, Washington, D. C.

1. Wolff, H. G.: Headache and Other Head Pain, New York, Oxford University Press, 1948.
2. von Storch, T. J. C.: The Migraine Syndrome, M. Clin. North America **22**: 689 (May) 1938.
3. Moench, L. G.: Headache, Chicago, The Year Book Publishers, Inc., 1947.
4. Blumenthal, L. S., and Fuchs, M.: to be published.
5. (*a*) Carter, J. B.: Cardiac Manifestations Following Ergotamine Tartrate Therapy for Migraine, J. A. M. A. **114**: 2298 (June 5) 1940. (*b*) Cleveland, F. E., and King, R. L.: Gangrene Following Ergotamine Therapy of Migraine, Bull. Mason Clin. **2**: 19 (March) 1948. (*c*) Icenstead, I. H.: An Instance of Ergotism, Correspondence, Mod. Med. **16**: 19 (Sept. 15) 1948.

point repeatedly emphasized in the literature,[6] may account for part of the difficulties. Overdosage is clearly incriminated as the factor at fault in the latter 2 cases.[5b, c] Von Storch[7] has seen one instance of ergotism in 800 patients treated for migraine.

The introduction of agents with decreased toxicity[8] and the development of medication which can be conveniently self administered[9] further emphasize the need for critical evaluation of the present problem. In light of the growing controversy regarding this subject, we should like to report two instances of toxic effects following the administraion of ergot alkaloids in patients with incontrovertible migraine.

REPORT OF CASES

CASE 1.—A 48 year old white woman, married and employed as a government clerk, first consulted us in February 1947, when the following history was obtained. The chief complaint was periodic headache which had begun in 1927. The pain was located over the eye and temple (usually the right), was throbbing in nature and occurred every two to three weeks and with menses. Nausea and occasional vomiting accompanied these attacks, but there was no preceding aura. The patient's mother, who died in childbirth at the age of 38, suffered from periodic headaches.

Physical examination revealed a blood pressure of 170 systolic and 90 diastolic and a fibroid uterus. Complete laboratory studies and roentgenograms were within normal limits. An electrocardiograph showed no abnormalities.

Symptomatic treatment with 1 cc. of dihydroergotamine subcutaneously afforded excellent relief on every occasion used. In April 1949, the patient inquired as to the possibility of an oral preparation, since she was unable to give herself injections and her husband was not with her during the day. The patient was given cafergot® (EC 110; each tablet contains 1 mg. of ergotamine tartrate and 100 mg. of caffeine) with appropriate instructions.

In May 1949, two cafergot® tablets were taken for the first time for headache. Thirty to forty minutes after ingestion of the tablets the following symptoms developed in rapid succession: massive emesis, precordial pain, palpitations, numbness of extremities and cramps in both thigh muscles. Objectively, lips and nailbeds were cyanotic, pulses were barely obtainable and the extremities were cold. Symptoms remained severe for four hours, and the patient was unable to get out of bed for twenty-four hours because of severe prostration. The following day her color was normal, her pulse was strong and other than weakness she had no complaints.

Subsequently, the patient has received 0.50 cc. of dihydroergotamine or ½ ergot suppository (each suppository consisting of 2 mg. of ergotamine tartrate and 100 mg. of caffeine) with no difficulty and with prompt and complete relief of headache.

CASE 2.—A 41 year old widow, employed as a secretary, was first seen on Nov. 3, 1947 with a history of periodic headache beginning at the age of 10. Pain usually occurred over the left eye and temple, was throbbing in character and persisted twenty-four to thirty-six hours if untreated. Vertigo frequently accompanied headache. During menses she became dizzy and vomited, but headaches usually were not present. Nausea and vomiting invariably accompanied the headache. Before the onset of the headaches, she frequently had double or blurred vision. Her mother and one brother had "migraine." There never had been any cardiac complaint.

Physical examination showed no abnormalities. Blood pressure was 120 systolic and 85 diastolic. Laboratory studies and roentgenograms were entirely normal. The electrocardiograph (three standard leads) was normal.

In December 1947 the patient was given instructions for self administration of dihydroergotamine subcutaneously. This was taken throughout the entire year at intervals of one to four times a month, each injection consisting of 1 cc. subcutaneously. Relief invariably occurred within two hours.

Beginning in November 1948 the patient came under increased tension and noticed that the frequency of headaches increased, occurring two or three times a week. Dihydroergotamine taken that frequently required as long as four hours to relieve headache. Anorexia and cyclic vomiting with tension resulted in a 30 pound (13.6 Kg.) weight loss within six months. In April 1949 tension reached its peak after a death in the family. A routine electrocardiogram (three standard leads) done on April 1 was normal. On April 16, after two previous injections that week, the patient took 1 cc. of dihydroergotamine subcutaneously for headache. Shortly thereafter a dull constricting pain developed in the substernal area which did not subside with rest. Treatment at home, consisting of bed rest, sedation and narcotics, resulted in no substantial improvement of the pain. An electrocardiogram taken April 25, after hospitalization, showed significant changes. These included inversion of the T wave in lead 1 and $_aV_L$ and V_3 leads; the Q wave became prominent in $_aV_L$ and V_3. These changes persisted through the months of May and June. The sedimentation rate and white cell count were normal. Pain abated with conservative treatment in ten days. An electrocardiogram in July 1949 showed upright T waves, but the Q wave in V_3 and $_aV_L$ persisted to the time of writing.

The patient was able to return to part time clerical duties in two months. Headaches failed to respond to treatment with methylisooctenylamine (octin®), diphenhydramine hydrochloride (benadryl®), ammonium chloride and other agents. Cafergot® in small doses has been taken infrequently with relief. Since July cafergot® has been taken no more frequently than every two weeks, oral doses not exceeding 4 tablets each. Precordial pain occurs on effort, but not after medication. The patient has been unable to regain any of the weight lost.

COMMENT

These cases are of interest on several counts. In the first patient, symptoms developed which, while completely subsiding in twenty-four hours, were alarming to the patient and physician. To our knowledge this is the first reported instance of severe untoward effects following cafergot® and represents symptoms far greater in magnitude than that ordinarily seen, or as reported earlier (von Storch).[10]

The development of severe precordial pain associated with electrocardiographic findings in case 2 represents the first known report of such toxicity from dihydroergotamine. The development of a coronary pattern is most interesting with this agent, since animal experiments[11] indicate that it exerts a favorable cardiac influence, but in large dose and only in the prevention of arrhythmias. The development of symptoms following prolonged malnutrition in this patient is of speculative interest in light of the observations of Fitzhugh, Nelson and Calvery.[12] These authors noted that, in rats, diets deficient in protein enhanced the toxcity from ergot.

Further, toxic symptoms developed in these cases in the absence of the established contraindications to ergot, other than the obvious overdosage in case 2. Von Storch[10] has pointed out that there is danger inherent in the use of ergotamine when sepsis, obliterative vascular disease, hepatic or renal malfunction or pregnancy

6. Blumenthal, L. S.: Headache: Common Etiologic Types and Methods of Therapy, Am. Pract. **1**: 10 (June) 1947.
7. von Storch, T. J. C.: Personal communication to the author.
8. Horton, B. T.; Peters, G. A., and Blumenthal, L. S.: A New Product in the Treatment of Migraine, Proc. Central Soc. Clin. Research **15**: 91 (Nov. 6) 1942.
9. (*a*) Horton, B. T.; Ryan, R., and Reynolds, J. L.: Clinical Observation on the Use of EC 110, a New Agent for the Treatment of Headache, Proc. Staff Meet., Mayo Clin. **23**: 105 (March 3) 1948. (*b*) Blumenthal, L. S., and Fuchs, M.: The Use of Ergot-Caffeine Suppositories in Migraine, Med. Ann. District of Columbia **19**: 77 (Feb.) 1950.
10. von Storch, T. J. C.: Complications Following the Use of Ergotamine Tartrate: Their Relation to the Treatment of Migraine Headache, J. A. M. A. **111**: 293 (July 23) 1938.
11. (*a*) Manning, G. W., and Cauldwell, G. C.: Effect of Demerol, Ergotamine and Dihydroergotamine after Coronary Occlusion in Dogs, Brit. Heart J. **1**: 85 (April) 1947. (*b*) Orth, O. W., and Ritchie, G.: A Pharmacological Evaluation of Dihydroergotamine Methanesulfonate (DHE 45), J. Pharmacol. and Exper. Therap. **90**: 166 (June) 1947.
12. Fitzhugh, O. G.; Nelson, A. A., and Calvery, H. W.: The Chronic Toxicity of Ergot, J. Pharmacol and Exper. Therap. **82**: 364 (Dec.) 1944.

are present. To these should be added malnutrition (protein and vitamin deficiency) and hypertension even in the absence of detectable vascular or renal complications as in case 1.

SUMMARY

Ergot is a most potent and effective agent in the symptomatic management of the migraine attack. Caution should, however, be observed, lest one be lulled into the belief that migraine lends immunity to ergotism. Overdosage should be scrupulously avoided. Malnutrition and hypertension are conditions that should lead to further restraint in the use of ergot alkaloids, as brought out by the 2 cases reported.

1601 Argonne Place, N.W. (9).

THE NORMAL BLOOD PRESSURE RANGE AND ITS CLINICAL IMPLICATIONS

ARTHUR M. MASTER, M.D.
LOUIS I. DUBLIN, Ph.D.
and
HERBERT H. MARKS, A.B.
New York

Hypertension is a common diagnosis in medical practice and is usually considered to bear a serious connotation. Arterial hypertension has been described as the most common and important of all types of heart diseases.[1] Yet the levels which constitute abnormally high blood pressure at various ages have not been accurately determined. The various figures now in use—140, 150 or 160 mm. of mercury systolic and 90 to 100 mm. of mercury diastolic—are arbitrary, particularly when age is concerned. The observation that many persons with high blood pressure live to old age suggests that undue significance is frequently attached to the degree of hypertension.[2]

In a report made several years ago we pointed out that the level of the figures generally accepted as indicative of hypertension should be raised for persons over 40 years of age.[3] This would result in a decrease in the reported incidence of hypertension and would thus allay some of the widespread and unnecessary fear regarding high blood pressure. An almost universal blood pressure phobia has been created because of the large number of persons who have been labeled as hypertensive. Many cases with the double label—hypertension and coronary sclerosis—would be diagnosed more correctly only as "coronary disease." Commonly accepted concepts of the relationship between hypertension and other diseases must be reconsidered.

There is thus an urgent need for a better definition of the limits of normal blood pressure. Good standards would have widespread application in clinical, insurance, industrial and military medicine. Since blood pressure readings are customarily only approximations, exact statistics cannot be derived from available records. We believe, however, that the data given in this report afford a useful measure of the limits of normal blood pressure for both men and women in the age groups from 16 to 65.

MATERIAL

Establishment of industrial medical services on a large scale during the war afforded an opportunity to obtain blood pressure readings for large numbers of persons who were in average good health and able to work. The data which form the basis of the present study were obtained from industrial plants in various sections of the country.

The majority of persons included were at work, but the study also included those applying for employment, whether or not they were rejected. The study covered executive, clerical and manual workers, both skilled and unskilled, although no attempt was made to identify specific occupations. Likewise, records did not show whether the individuals were white or Negro, but the great majority were of the white race. Altogether, unselected records of about 74,000 persons in sixteen industrial plants and army airfields (civilian personnel only) were collected. Because of the large volume of material, random samples were taken in order that there should be at least 500 observations for men and for women in each age group. In a few instances, however, when the number available was less than 500, all the cases were used. The data tabulated cover 15,706 persons (7,722 men and 7,984 women) in eleven of the installations.[4] The age range was 16 to 65 years. The volume of data for ages over 65 years was so small that this part of the material was omitted. Samples were taken at ages 16, 17, 18 and 19, in order to determine, particularly in males, the variation at individual ages during the period before full growth has been attained.

The men in this study are more representative of the male population than are the women of the female population. The fact that these data were collected during wartime causes little distortion in the material because hypertension and hypotension were relatively unimportant as causes of rejection for service. The sample of men includes both married and single men approximately in the same proportion as are found in the general population, except at the military ages, and the occupational distribution is presumably similar to that of the urban population. The sample of women, as is characteristic of any group of working women, consists predominantly of single or childless women and there is a heavy concentration in clerical jobs. This type of bias in the women's group appears in most of the age range and is probably most pronounced after the age of 45. It is doubtful whether this bias seriously affects the value of the results. Furthermore, during the war many married women were employed.

Typical Defects in Blood Pressure Readings.—In the present data, as in all records of blood pressure readings, the most frequently occurring terminal digit is zero; another large group of readings terminate in an even number, especially the number eight. Janeway[2a] pointed out this tendency toward inexact recording in

---

Read before the Scientific Assembly at the Clinical Session of the American Medical Association, Dec. 8, 1949, Washington, D. C.

From the Cardiographic Department of the Mount Sinai Hospital and the Statistical Bureau, the Metropolitan Life Insurance Company.

This article has been abbreviated in THE JOURNAL by omission of part of the tables. The complete article will appear in the authors' reprints.

The following persons gave us blood pressure readings and cooperated in many ways: Dr. William J. Fulton (Eastern Aircraft), Vice Admiral Ross T. McIntire, Admiral Kent Melhorn, Rear Admiral Luther Sheldon Jr., Dr. Loyal A. Shoudy (Bethlehem Steel Corp.), Col. George Sladczyk and Dr. John H. Wittmer (Consolidated Edison). Financial aid and encouragement were given by Mrs. Charles Altschul, the S. & L. Blumenthal Fund, Mr. and Mrs. Frank Altschul and Senator and Mrs. Herbert H. Lehman, New York. Miss Lydia Buechi and Mr. William Holland assisted with the details of the material, the bibliography and the tables.

1. White, P. D.: Heart Disease, ed. 3, New York, Macmillan Company, 1948, p. 429.

2. (*a*) Janeway, T. C.: A Clinical Survey of Hypertensive Cardiovascular Disease, Arch. Int. Med. **12**: 755-798 (Dec.) 1913. (*b*) Bechgaard, P.: Arterial Hypertension: A Follow-Up Study of One Thousand Hypertonics, Acta med. Scandinav., 1946, supp. 172, pp. 3-358. (*c*) Blood, D. W., and Perera, G. A.: Hypertensive Vascular Disease: Duration of Life in a Selected Series, Am. J. Med. **4**: 83-88 (Jan.) 1948. (*d*) Burgess, A. M.: Excessive Hypertension of Long Duration, New England J. Med. **239**: 75-79 (July 15) 1948. (*e*) Perera, G. A.: Hypertension: A Manifestation of Hypertensive Vascular Disease, New York State J. Med. **48**: 1724-1728 (Aug. 1) 1948.

3. Master, A. M.; Marks, H. H., and Dack, S.: Hypertension in People over 40, J. A. M. A. **121**: 1251-1256 (April 17) 1943.

4. Civilian workers in Army airfields at Mobile, Ala., Oklahoma City, Okla., San Bernardino and Sacramento, Calif., San Antonio, Texas, Spokane, Wash., and Ogden, Utah; also workers in the Brooklyn Navy Yard, New York, Bethlehem Steel Company, Pennsylvania, Consolidated Edison Company, New York and the Eastern Aircraft Company, Baltimore.

1913. In our material we found that terminal zeros and even numbers occurred more often in the diastolic than in the systolic readings. In the figures for all ages combined the distribution is somewhat different for blood pressure readings below the average than for those above the average. Therefore determination of either true median or modal blood pressures in the various divisions of the material is not practicable without laborious curve fitting. Because of the doubtful reliability of such figures, this was not attempted.

ANALYSIS OF THE DATA

Characteristics by Age and by Sex.—The material was analyzed according to sex, age, height and weight. The statistical characteristics of the readings computed directly from the raw data were means, standard deviations, coefficients of variation of the systolic and diastolic readings separately and the coefficients of correlation between systolic and diastolic readings. In addition the frequency of hypotension and hypertension, according to various definitions, were computed according to sex and age.

TABLE 1.—*Systolic and Diastolic Blood Pressure Readings by Sex and Age*

Sex and Age	Systolic			Diastolic		
	Mean	Stand. Dev.	Coef. of Variation	Mean	Stand. Dev.	Coef. of Variation
Males						
16	118.4	12.17	10.28	72.9	10.33	14.17
17	121.0	12.88	10.64	74.4	9.36	12.58
18	119.8	11.95	9.97	74.4	10.03	13.48
19	121.8	14.99	12.31	74.6	10.29	13.79
20-24	122.9	13.74	11.18	76.0	9.93	13.07
25-29	125.1	12.58	10.06	77.8	8.98	11.54
30-34	126.1	13.61	10.79	78.5	9.68	12.33
35-39	127.1	14.20	11.17	80.4	10.42	12.96
40-44	129.0	15.07	11.68	81.2	9.53	11.74
45-49	130.0	16.93	13.02	82.0	10.81	13.18
50-54	134.5	19.21	14.28	83.4	11.31	13.56
55-59	137.8	18.80	13.64	84.0	11.40	13.57
60-64	141.8	21.11	14.89	84.5	12.36	14.63
Females						
16	116.1	12.10	10.42	72.3	9.55	13.21
17	116.0	11.51	9.92	72.0	9.16	12.72
18	116.3	11.42	9.82	71.8	8.60	11.96
19	115.1	11.87	10.31	71.1	8.93	12.56
20-24	115.7	11.83	10.22	71.7	9.67	13.49
25-29	116.8	11.43	9.79	73.7	9.05	12.28
30-34	119.8	13.97	11.66	74.9	10.78	14.39
35-39	123.9	13.85	11.18	78.0	10.01	12.83
40-44	127.0	17.07	13.44	79.5	10.60	13.33
45-49	130.6	19.47	14.91	81.5	11.53	14.27
50-54	137.3	21.29	15.51	83.5	12.36	14.80
55-59	138.5	21.40	15.45	83.5	11.72	14.04
60-64	144.0	22.33	15.51	85.0	12.95	15.24

Mean Blood Pressure Values.—Mean blood pressure readings, both systolic and diastolic, increase with age in both sexes (table 1). Average systolic readings for men show a fairly smooth progression up to the age of 50; after that age the increase accelerates. For women the increase in the averages by age is somewhat less smooth or continuous than it is for men, but among them, too, it is accelerated after the age of 50. Beginning with the age of 20 the upward progression in diastolic pressure with age is fairly steady for both sexes; systematic acceleration of the average is not found over any broad age period.

Among boys between the ages of 16 and 19 an upward trend is observed in the averages for both systolic and diastolic pressures. Among girls, on the other hand, values for both systolic and diastolic pressures are practically identical between the ages of 16 and 18 and remain unchanged through the age period 19 to 24. Explanation of this difference may lie in the fact that boys mature between the ages of 16 and 19; they become heavier and are much more active than are girls at these ages. Girls mature earlier. It has been long recognized that a rapid rise in blood pressure occurs during puberty and adolescence.[5]

In the present study averages for systolic pressures among men ranged from 118.4 mm. at the age of 16 years to 141.8 mm. in the age group 60 to 64 years; for the diastolic, from 72.9 mm. at the age of 16 to 84.5 mm. at ages 60 to 64 years. Among women the range of averages for systolic pressures was from 115.1 mm. at the age of 19 years to 144.0 mm. at the age group 60 to 64 years; for the diastolic from 71.1 mm. at the age of 19 years to 85.0 mm. in the ages 60 to 64 years.

Up to the age of 45 years the average systolic pressure was higher for men than for women. Between the ages of 25 and 29 the difference was 8 mm. After the age of 45 the average blood pressure of women was higher, but the difference between the sexes was small. That blood pressure increases in both sexes after 45 years of age has been known for many years.[6]

Average diastolic readings for men were also higher than those for women up to the age of 50. The maximum difference, about 4 mm., was recorded between the ages of 20 and 24. After the age of 50 diastolic averages were about the same in both sexes; such differences as were observed were neither consistent nor large.

The figures for the standard deviation given in table 1 indicate that there is an absolute increase in the range of the readings with age. The relative variation, moreover, as measured by the coefficient of variation also has an upward trend with age. This increase begins after the age of 25 and is found in both systolic and diastolic readings. For example, among men between the ages of 25 and 29 the standard deviation around the mean of the systolic readings is 12.58 mm., or 10 per cent of the mean figure; between the ages of 60 and 64 the standard deviation is 21.11 mm., or nearly 15 per cent of the mean figure.

The absolute range of diastolic readings is, of course, smaller than the range of systolic readings. The relative variation, however, is larger for the diastolic than for the systolic up to the age of 40 years, in both sexes; after the age of 40 systolic pressures have a somewhat larger relative variation, but the differences are small. Take for example the figures for men from 30 to 34 and from 50 to 54 years of age. The standard deviation for systolic pressure is 13.61 mm. and for diastolic pressure 9.68 mm., 10.8 and 12.3 per cent, respectively, of the mean values. For the ages 50 to 54, however, the standard deviation for systolic pressure is 19.21 mm. and for diastolic 11.31 mm.; 14.3 and 13.6 per cent, respectively, of the mean values.

It should also be noted that the range of blood pressure readings, both absolutely and relatively, is greater for women than for men at ages over 40. For example, for men between 40 and 44 years of age the standard deviation of systolic pressure is 15.07 mm. and the coefficient of the variation is 11.7 per cent; the corresponding figures for women are 17.07 mm. and 13.4 per cent. Similarly, diastolic figures for men are 9.53 mm. and 11.7 per cent, respectively; for women, 10.60 mm. and 13.3 per cent, respectively.

At ages 30 to 40 the differences between the sexes with respect to actual and relative variability of blood pressure readings show no constant pattern. At ages under 30 years the situation tends to be the reverse of that found at ages over 50 years; that is, the figures for men are higher than the figures for women. The differences that do occur, however, are generally smaller than those observed at the older ages. A possible exception is found in the data for ages under 20. It

5. (*a*) Gover, M.: Physical Impairments of Members of Low-Income Farm Families: VII. Variation of Blood Pressure and Heart Disease with Age and the Correlation of Blood Pressure with Height and Weight, Pub. Health Rep. **63**: 1083-1101 (Aug. 20) 1948. (*b*) Alvarez, W. C.: Blood Pressure in 15,000 University Freshmen, Arch. Int. Med. **32**: 17-30 (July) 1923.

6. Symonds, B.: The Blood Pressure of Healthy Men and Women, Proc. A. Life Insur. M. Dir. America (1922) **9**: 22-59, 1923. Fishberg, A. M.: Hypertension and Nephritis, ed. 4, Philadelphia, Lea & Febiger, 1939, pp. 213, 215, 216, 554, and 572. Master, Marks and Dack.[1] Alvarez.[5b]

is likely that the greater variability in blood pressure of men under 20 years of age is a reflection of the later age at which men attain maturity as compared with women.

COMPARISON OF BLOOD PRESSURES IN VARIOUS SURVEYS

Figure 1 gives a comparison of the systolic and diastolic averages for men and women in the present study with those from other selected investigations. For the purpose we have taken Gover's data [5a] on members of white farm families receiving assistance from the Farm Security Administration, Robinson and Brucer's data [7] on life insurance policyholders examined by the Life Extension Institute in Chicago and the data of Russek and his associates [8] on merchant seamen, active or retired, coast guardsmen, candidates for civil service and an older group of indigent city dwellers. The Robinson and Brucer data [7] include their entire experience and not that limited to subjects with readings under 140 mm. systolic and 90 mm. diastolic. It is readily seen that the averages obtained in our material are about intermediate between the figures of other

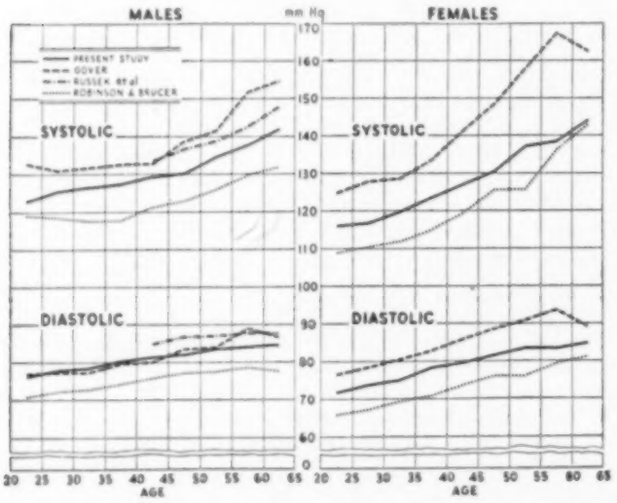


Fig. 1.—Mean blood pressure readings in selected studies including those by Gover,[5a] Russek, Rath, Zohman and Miller [8] and Robinson and Brucer.[7]

sources shown in the graph. Actually, when material from the other numerous studies was examined, we found that the averages in the present series still occupied an approximately middle position.

Influence of Height.—For this aspect of the analysis the subjects were divided into three groups: short, medium and tall. The groups were defined as follows, the heights being classified according to the nearest inch (table 2).

	Male	Female
Short	5 ft. 5 in. and less	5 ft. 1 in. and less
Medium	5 ft. 6 in. to 5 ft. 10 in.	5 ft. 2 in. to 5 ft. 6 in.
Tall	5 ft. 11 in. and over	5 ft. 7 in. and over

No clearcut relationship between height and blood pressure was found in the data. Among men mean systolic blood pressures are consistently highest for tall men through ages 35 to 39. Up to the ages of 30 to 34 the averages for men of medium height are greater than those for short men. After the age of 40 the differences in mean systolic pressures of men according to height are not significant. Among women there is no apparent correlation between mean systolic readings and height.

Mean diastolic readings for men show no consistent pattern according to height, except under the age of 20. Among the young there is a consistent increase in the averages with increase in height, the difference between the average for short and tall men being a little over 3 mm. of mercury. Among women, the average diastolic blood pressure of tall women is consistently higher than that of shorter women at most ages up to 45. Beyond that age the pattern is not consistent.

Influence of Weight.—Data showing the relation of weight to blood pressure are given in table 3. The subjects were divided into four weight groups: underweight, 10 per cent or more below average; average weight, less than 10 per cent above or below average; overweight, moderate, 10 to 24 per cent above average, and overweight, severe, 25 per cent or more above average. The standard tables of average weight for height and age for men and women were used. It is apparent that weight is an important and consistent factor in blood pressure changes. With increase in weight there is progressive increase in the averages of systolic and diastolic blood pressure, regardless of age or sex. The effect of weight on blood pressure is, of course, well known.[9] Reduction in weight is a routine therapeutic procedure for patients with hypertension.

The difference in the mean systolic blood pressure of underweight and overweight groups at each extreme exceeds 10 mm. of mercury in some instances; the difference in diastolic pressures is almost as great. Among women, particularly after the age of 40, the differences between the weight groups at either extreme with respect to the mean pressures, both systolic and diastolic, are even greater than are those among men. Absolute and relative variations in blood pressures, as measured by the standard deviation and the coefficient of the variation, also tend to increase with weight, particularly after the age of 40 years. In general, the greatest contrast in the mean pressures is found at the older ages and among women.

Relative Influence of Height and Weight.—In order to clarify further the influence of body build on blood pressure, the material was analyzed according to the four weight classes separately for short, medium and tall men. It was evident from this detailed analysis that weight showed a consistent influence on the level of the blood pressure. The averages for both systolic and diastolic values tended to rise with increase in weight in every height class. However, the effect of height on blood pressure seemed to be negligible, because no systematic trend in the averages was noted with respect to height in the several weight groups.

Incidence of Hypertension and Hypotension.—In view of the differences of opinion concerning the definition of hypertension and hypotension, their incidence has been computed according to various definitions, some of which are based on the systolic and on the diastolic readings independently and the remainder on combinations of the two readings. The groupings based on the combined systolic and diastolic readings include cases in which either reading was within the

7. Robinson, S. C., and Brucer, M.: Range of Normal Blood Pressure: Statistical and Clinical Study of 11,383 Persons, Arch. Int. Med. **64**: 409-444 (Sept.) 1939.

8. Russek, H. I.; Rath, H. M.; Zohman, B. L., and Miller, I.: The Influence of Age on Blood Pressure: A Study of 5,331 White Male Subjects, Am. Heart J. **32**: 468-479 (Oct.) 1946.

9. Boynton, R. E., and Todd, R. L.: The Relation of Body Weight and Family History of Hypertensive Disease to Blood Pressure Levels in University Students, Am. J. M. Sc. **216**: 397-402 (Oct.) 1948. Smirk, F. H.: The Pathogenesis of Essential Hypertension, Brit. M. J. **1**: 791-799 (May 7) 1949. Gover.[5a]

specified limits. For example, the hypertensive group, 140 mm. systolic and 90 mm. diastolic or over, includes readings of 138 systolic and 90 diastolic or 142 systolic and 88 diastolic.

Hypertension: Table 4 shows the incidence of hypertension by the several standards. It is readily seen that the frequency of so-called hypertension increases steadily with age. Minor deviations from the upward trend are unimportant and may be attributed to the size of the samples in the particular categories involved. Hypertension of mild degree is frequent at comparatively young ages, particularly among men. About one fifth of the men between the ages of 20 and 29 had readings of 140 mm. systolic and 90 mm. diastolic or over. The greater degrees of hypertension were relatively infrequent at these ages; readings of 150 mm. systolic and 100 mm. diastolic or over occurred in only 1 in every 20 cases.

Hypertension of at least mild degree was common in middle-aged and old persons. Blood pressures of 140 mm. systolic and 90 mm. diastolic or over are present in about 40 per cent of both men and women at ages 45 to 49 and in 60 per cent at ages 60 to 64. Readings of 150 mm. systolic and 100 mm. diastolic or over are found in nearly 20 per cent of persons by the age of 45. Thereafter the incidence rises steadily to over 35 per cent in both sexes between the ages of 60 and 64. Whatever definition of hypertension is used, the condition is found more frequently in men than in women up to the age of 45. After that age the incidence is generally higher in women.

These observations are in essential conformity with those we published in 1943 on blood pressure levels in persons over 40,[8] although the present figures tend to be lower for women. On the basis of the data collected in the earlier study we estimated that for men aged 40 and over the blood pressure is 140 mm. systolic and 90 diastolic in about half; at 50 and over, 60 per cent; at 60 and over, 70 per cent, and 70 and over, 77 per cent. Even on the basis of a dividing line of 150 mm. systolic and 100 mm. diastolic the prevalence of hypertension was high. It was estimated that 32 per cent of the men aged 40 and over had this degree of hypertension; at 50 and over, 43 per cent; at 60 and over, 55 per cent, and at 70 and over, 62 per cent. The percentages for women in these age groups were substantially higher than those for men.

Our data as to the frequency with which higher readings are found in the middle and older age groups is confirmed by the literature. When one scrutinizes studies of the cardiovascular system in persons over 65 or 70 years of age [10] the high incidence of hypertension by most standards now in use is apparent. Individually these series are too small to permit accurate deductions, but taken collectively the conclusion is inescapable that high systolic blood pressure and slightly to moderately raised diastolic pressure are found in the majority of persons 60 years of age and older.

Hypotension: Table 5 shows the frequency of low blood pressure according to sex and age. The general pattern is the same for all three definitions of hypotension that we used in our analysis, the only difference being in the level of the figures. Low blood pressure is noted most frequently in young adults. In men the incidence of low blood pressure decreases steadily until the age of 45 is reached. Thereafter the frequency is extremely low and varies little. The number of women with hypotension declines steadily with age. Variations at the older ages are of little significance because of the small size of the sample. It is notable that the incidence of low blood pressure is higher in women in all the age groups. In women under 25 years of age the frequency of blood pressures of 100 mm. systolic and 60 mm. diastolic or under exceeds 1 in 5. This confirms the clinical impression of recent years that systolic blood pressure of 100 mm. of mercury is not uncommon in young adults.

THE RANGE OF NORMAL BLOOD PRESSURE

Since blood pressure readings as high or higher than those widely accepted as the upper limits of normal are so frequently encountered, particularly in persons over 40 years of age, it seems evident that the range of normal blood pressure should be reconsidered. Opinion differs as to the method to be adopted in defining this range. There are two broad approaches to the problem. The first, followed in this paper, is a statistical definition based on the distribution of blood pressure readings around the mean, according to sex and age. This takes cognizance of the fundamental property of the data of most measurable human structures or characteristics, namely, that their frequency distribution yields a fairly normal curve. With some limitations this holds true for blood pressure readings. Consequently, the customary statistical tests of significance can be applied to deviations from the mean values. The usual yardstick is the standard deviaion, σ. In a normal distribution, roughly two thirds of the observations will be found within the range of the mean $\pm \sigma$ and approximately 95 per cent of the observations will be within the range of the mean $\pm 2\sigma$. Obviously, since there is no sharp dividing line between clearly normal and clearly abnormal levels of blood pressure, the limits of normal blood pressure, even by a statistical definition, must be arbitrary. Certainly we may assume that any reading within one standard deviation of the mean is probably within the normal range, and it is not unreasonable to extend this normal range to cover 80 per cent of the observations, that is, 40 per cent on either side of the mean. On the other hand, any blood pressure reading departing 2σ or more from the mean is probably abnormal. For practical use the range of 5 per cent at the upper and lower ends of the curve may be taken as constituting this abnormal group. The area between the limits of the normal and the limits of the probably abnormal would thus constitute a narrow borderline zone.

The second approach in defining the normal range of blood pressure makes use of the approximate level beyond which there is an increase in the mortality above the average. This reflects the results of life insurance mortality investigations which show, with some degree of variation according to age, an increase in death rates when the systolic pressure reaches 140 mm. and the diastolic 90 mm. An example of this approach is found in the study by Robinson and Brucer.[7] In their study the upper limit of normal systolic was taken at 140 and of diastolic at 90, regardless of age. Lower limits were not set. The chief objection to this approach is that it disregards the amount of variability of blood pressure as a physical characteristic and the well known fact that blood pressure generally increases with age. Actually, this approach is closer to the concept of ideal blood pressure. As in the case of weight, the lowest mortality

10. (*a*) Willius, F. A.: The Heart in Old Age: A Study of 700 Patients 75 Years of Age and Older, Am. J. M. Sc. **182**: 1-12 (July) 1931. (*b*) Russek, H. I., and Zohman, B. L.: Normal Blood Pressure in Senescence: A Study of 3,691 White Male Subjects Between the Ages of 50 and 95 Years, Geriatrics **1**: 113-120 (March-April) 1946. (*c*) Gavey, C. J.: The Cardiology of Old Age, Lancet **2**: 725-736 (Oct. 22) 1949.

is found among persons with blood pressure somewhat below the average for age. The application of this approach to the statistical study of blood pressure results, furthermore, in quite illogical results in computing the means and other statistical characteristics of blood pressure data.

Figure 2 shows the application of our proposed procedure, based on the statistical definition, to the determination of the systolic limits among men. The wide diagonal area in the middle shows the readings that may be taken fairly definitely as within the normal range in successive age groups. The heavier lines at the top and the bottom indicate readings according to age that are probably abnormal, and the zones in between are the borderline hypertensive and hypotensive zones. This graph is based on the actual computations. However, since blood pressure readings themselves are not so exact, some degree of modification of the computed values is necessary. This has been carried out in a table which shows the normal range of systolic and diastolic pressure by sex and age and the limits beyond which readings are probably abnormal, both on the high and the low side (table 6). Again, we would stress the point of view that persons with readings falling outside the upper limits of hypotension and the lower limits of hypertension should not, for this sole reason, be labeled hypotensive or hypertensive, but the probability that they are is extremely high.

Blood pressure readings which fall in the normal range should be considered entirely normal, but those in the intermediate zone between this normal range and lower limit of hypertension are best viewed as probably normal but should receive a thorough study before final decision is reached.

The normal range of systolic blood pressure in males (table 6) starts at age 16 with 105 to 135 mm. of mercury, and at ages 60 to 64 reaches 115 to 170. In women it starts at a slightly

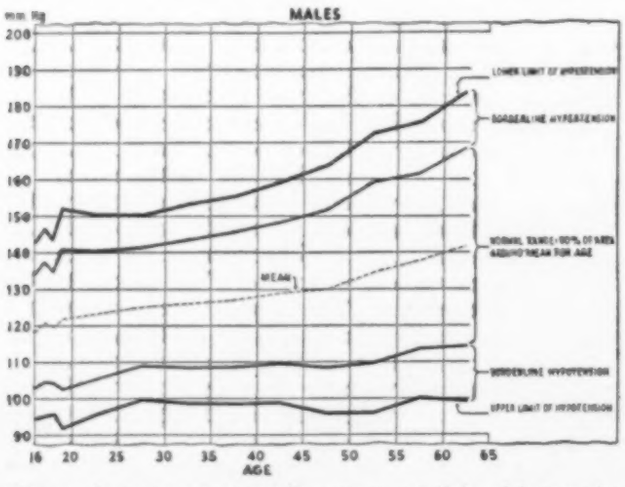


Fig. 2.—Range of normal systolic pressure and limits of hypertension and hypotension.

lower level; at 16 years of age the normal range is 100 to 130 mm. of mercury. At ages 60 to 64 years the range is 115 to 175. This is slightly higher than in men.

At ages 16 to 18 the lower limit of hypertension is 145 mm. of mercury systolic; at 19 years, 150 mm., and at 30 to 34 years, 155 mm. It then increases about 5 mm. every five years. At ages 60 to 64, 190 mm. is the lower limit. In women the lower limit of hypertension is 140 mm. of mercury systolic up to age 30. Thereafter it increases 5 or 10 mm. for every five years, and by age 45 it is actually higher than in men. The hypertensive limit remains higher than among men up to ages 60 to 64, when it may be taken as the same in the two sexes.

The range of normal diastolic pressure begins at 60 to 86 mm. of mercury at age 16 in men and at 65 to 85 mm. in women. The change with age is gradual. By ages 40 to 44 the level is 70 to 94 mm. for men; after age 40 the lower limit of normal remains the same, but the upper limit of normal gradually increases to 100 mm. at ages 60 to 64. In women the normal range at 40 to 44 years is 65 to 92 mm. and at ages 50 to 54 rises to 70 to 100 mm.; it remains at this level to 60 to 64 years of age.

TABLE 6.—*Normal Range and Limits of Hypotension and Hypertension*

	Systolic *			Diastolic *		
Sex, Age	Hypotension Upper Limit	Normal Range	Hypertension Lower Limit	Hypotension Upper Limit	Normal Range	Hypertension Lower Limit
Males						
16	98	105-135	145	52	60-86	90
17	98	105-135	145	55	60-86	90
18	98	105-135	145	55	60-86	90
19	98	105-140	150	55	60-88	95
20-24	98	105-140	150	56	62-88	95
25-29	100	108-140	150	60	65-90	96
30-34	100	110-145	155	60	68-92	98
35-39	102	110-145	160	60	68-92	100
40-44	102	110-150	165	60	70-94	100
45-49	104	110-155	170	60	70-96	104
50-54	105	115-160	175	60	70-98	106
55-59	106	115-165	180	60	70-98	108
60-64	108	115-170	190	60	70-100	110
Females						
16	95	100-130	140	55	60-85	90
17	95	100-130	140	55	60-85	90
18	95	100-130	140	55	60-85	90
19	95	100-130	140	55	60-85	90
20-24	95	100-130	140	55	60-85	90
25-29	98	102-130	140	55	60-86	92
30-34	98	102-135	145	55	60-88	95
35-39	100	105-140	150	60	65-90	98
40-44	100	105-150	165	60	65-92	100
45-49	100	105-155	175	60	65-96	105
50-54	105	110-165	180	60	70-100	108
55-59	105	110-170	185	60	70-100	108
60-64	105	115-175	190	60	70-100	110

* Blood pressure readings in millimeters of mercury.

The lower limit of diastolic hypertension in men at ages 16 to 18 is 90 mm. of mercury; then at age 19 it is 95 mm. and gradually increases until at ages 60 to 64 it is 110 mm. For women the hypertensive limit is slightly lower than that of men at some ages under 45, and after that is practically identical.

Hypotension Limits.—In young men 16 through 24 years of age a systolic blood pressure 98 mm. of mercury or less is probably abnormal. The upper limit of hypotension increases gradually with age until ages 60 to 64, when a reading of 108 mm. or less is likely to be abnormal. In women the pattern is much the same as in men, but the limits are about 2 to 4 mm. lower.

The upper limit for diastolic hypotension gradually rises in young men from 52 mm. at age 16 to 56 mm. at ages 20 to 24, then increases to 60 mm. at ages 25 to 29 and remains unaltered to age 65. Among women the limit is 55 mm. between ages 16 and 34, then increases to 60 mm. and remains unaltered to age 65.

COMMENT

The problem of high blood pressure is omnipresent. Both physicians and lay persons consider it important. The physician can easily instill fear in the patient with his blood pressure reading. The number of patients who appear in offices of internists or cardiologists simply because they have been told that they have high blood pressure is so large that the use of the expression "blood pressure phobia" is genuinely warranted. This should change. A number of authors have emphasized the fact that the course of hypertension in patients over 50 years of age is frequently benign.[2] Bechgaard [2b]

followed 1,038 patients four to eleven years and found that half of them were in good health and one fourth were symptom free. He noted that excess mortality in hypertensive persons diminished definitely with age. This trend is apparent also in life insurance investigations of mortality among persons with higher than average blood pressure.[11]

Although the life insurance studies show an increased mortality with even relatively moderate rises in blood pressure above the average with age and must be used as a guide for life insurance purposes, the significance of the results for the clinician may be greatly misunderstood. First, these observations do not mean that all or even the majority of persons with elevated blood pressure will suffer a diminution of longevity but simply that an undue proportion of them will, and consequently the average longevity for the group is lowered. This concept of the group used by the life insurance medical director is quite different from that of the clinician, who must be concerned with the individual. The results of the life insurance studies have value for clinicians in that these indicate blood pressure levels which should put one on the alert for signs of cardiovascular impairment.

Our study of 1943 [8] and the present report afford evidence that blood pressures which are usually considered above normal are not uncommon up to the age of 40 and that after the age of 45 they are more frequent than some so-called normal readings. At ages 55 or 60 and older, systolic pressure of 180 or even to 190 mm. and diastolic pressure of 100 or even 110 mm. should not *ipso facto* be considered abnormal. These readings may merely reflect the degree of arteriosclerosis present.[12] This statement is not, of course, intended to include malignant hypertension or hypertension secondary to renal or other disease. But in many persons at present termed hypertensive because of a blood pressure of 170 mm. systolic and 90 mm. diastolic or 160 mm. systolic and 100 mm. diastolic these figures represent not a specific disease but merely the aging process, and therefore should not be a cause for alarm. The prognosis in patients over 50 years of age with blood pressures even as high as 200 mm. systolic and 110 mm. diastolic may well be fair.

It is essential in evaluating blood pressure readings that one use our tables sensibly and not too literally. As we have had occasion to point out in a previous paper,[13] the whole clinical picture must be taken into account. The history, the physical examination, the size of the heart, the resting electrocardiogram and the two-step exercise electrocardiogram are all important in judging health, presence of disease and study of cardiac function. Just as dependence for diagnosis on a single observation or test may be a dangerous practice in clinical medicine, so the evaluation of the blood pressure reading without correlation with the entire examination of the patient is unsound.

In instances in which the blood pressure attains the lower limit of hypertension or goes higher it might be practical to consider it an abnormal reading until proved otherwise. For example, a man or woman aged 52 with a systolic blood pressure of 182 mm. of mercury or a diastolic pressure of 110 mm. of mercury should receive a complete examination. Similarly, an 18 year old applicant for the military forces with a systolic blood pressure reading of 145 mm. or higher should be most thoroughly checked before a decision is reached on his fitness for service, although as a practical matter virtually all such candidates would be rejected.

Even after coronary occlusion the immediate prognosis for those with hypertension is no worse than for those with normal blood pressure.[14] It has been pointed out previously [15] that hypertension defined as 150/90 mm. Hg., occurred in 60 to 70 per cent of a series of cases of coronary occlusion.[16] In these papers hypertension was included among the etiologic factors of coronary occlusion, but it was found that mortality rate and the incidence of heart failure were no greater among those with than among those without hypertension. The majority of patients wtih coronary occlusion are over the age of 50, an age when hypertension is exceedingly common.[16a] The etiologic relationship between hypertension and coronary artery disease and occlusion should be reexamined.

Cardiac enlargement occurring in a hypertensive patient is usually attributed to the hypertension rather than to any coronary disease that may be present. However, several authors [17] have questioned this point of view and in our opinion the relationship of hypertension to cardiac enlargement also requires reinvestigation. Hypertension may be merely coincidental and, as we have implied, in many instances may be the result rather than the cause of arteriosclerosis. The proposed limits of hypertension given in the tables may be useful in investigating the problems of relationship of hypertension to coronary disease, and of these two to cardiac enlargement. Recent writers have advocated higher limits of normal blood pressure than are ordinarily employed. For example, East and Bain [18] used a limit of 160 mm. of mercury systolic and Evans [19] used 180 mm. systolic and 110 mm. diastolic. It is widely accepted that among women angina pectoris due to coronary disease is commonly associated with hypertension, much more so than among men. Since elevated blood pressures are even commoner in women than in men over the age of 45, the discovery of hypertension in female patients with coronary disease may be a coincidence. This point, too, requires further study.

11. Symonds, B.: The Blood Pressure of Healthy Men and Women, Proc. A. Life Insur. M. Dir. America **9**: 22-59, 1923. Rogers, D. H., and Hunter, A.: Mortality Study of Impaired Lives, no. 5: Systolic, Diastolic and Pulse Pressures Higher than the Average for the Age, ibid. **13**: 176-186, 1927. MacKenzie, L. F., and Wells, P. V.: On the Interpretation of Blood Pressure, ibid. **19**: 89-154, 1933. Bassford, H. R.: Blood Pressure Mortality in the Light of Reported Diastolic Readings, ibid. **19**: 77-88, 1933. Blood Pressure, Joint Committee on Mortality, A. Life Insur. M. Dir. & the Actuarial Soc. America, New York, 1925. Medical Impairment Study, Joint Committee on Mortality; ibid. New York, 1931. Blood Pressure, Joint Committee on Mortality, ibid. New York, 1940.

12. Wiggers, C. J.: The Physical and Physiological Aspects of Arteriosclerosis and Hypertension, Ann. Int. Med. **6**: 12-30 (July) 1932. Fahr, G.; Davis, J.; Kerkhof, A.; Hallock, P., and Giere, E.: The Hemodynamics of Arteriosclerosis: The Influence of Change of Coefficient of Volume Elasticity on Circulation, Am. J. Physiol. **101**: 376-390 (July) 1932. Zeman, F. D., and Schwartz, B. M.: The Effects of Arteriosclerosis on the Dynamics of Hypertension in the Aged: A Preliminary Clinical and Pathological Study of 150 Cases, J. Gerontol. **3**: 40-47 (Jan.) 1948. Master, Marks and Dack.[3]

13. Master, A. M.: Cardiovascular Problems in the War: Hypertension and the Navy, Bull. New York Acad. Med. **19**: 704-712 (Oct.) 1943.

14. (*a*) Billings, F. J., Jr.; Kalstone, B. M.; Spencer, J. L.; Ball, C. O. T., and Meneely, G. R.: Prognosis of Acute Myocardial Infarction, Am. J. Med. **7**: 356-370 (Sept.) 1949. (*b*) Master, A. M.; Jaffe, H. L.; Dack, S., and Silver, M.: The Course of the Blood Pressure Before, During and After Coronary Occlusion, Am. Heart J. **26**: 92-107 (July) 1943.

15. Burgess.[3d] Master, Marks, Dack.[3]

16. (*a*) Master, A. M.; Dack, S., and Jaffe, H. L.: Age, Sex and Hypertension in Myocardial Infarction Due to Coronary Occlusion, Arch. Int. Med. **64**: 767-786 (Oct.) 1939. (*b*) Master, Jaffe, Dack and Silver.[14b]

17. Davis, D., and Klainer, M. J.: The Relation of Hypertension to Coronary Atherosclerosis, J. Clin. Investigation **18**: 482 (July) 1939. Evelyn, K. A.: The State of the Arterioles in Essential Hypertension, Am. J. M. Sc. **214**: 312-321 (Sept.) 1947. Donald, T. C., Jr.: Blood Pressure in Coronary Occlusion, New Orleans M. & S. J. **98**: 209-214 (Nov.) 1945. Hurwitz, M., and Friedberg, L.: Relationship of Heart Size to Cholesterol Content in Experimental Atheromatosis of the Rabbit, Arch. Path. **34**: 875-882 (Nov.) 1942.

18. East, T., and Bain, C.: Recent Advances in Cardiology, ed. 4, Philadelphia, The Blakiston Company, 1948, pp. 111, 114, 132, 133 and 134.

19. Evans, W.: Cardiology, New York, Paul B. Hoeber, Inc., 1948, p. 204.

To the clinician the proposed upper limits of hypotension should appear reasonable. A figure below 95 to 98 mm. of mercury systolic in an adult is usually found only in patients who have sustained coronary occlusion with slow recovery of strength, in orthostatic hypotension, during convalescence from severe illness or in anemia, debility states or Addison's disease and in shock and shocklike states. It is not uncommonly associated with fatigue brought about by overwork and lack of sleep. The diastolic pressure may fall to 50 mm. or less after exercise, particularly in young persons, but at rest such a low figure is observed only in aortic insufficiency or in hypotensive states associated with postural hypotension, shock or reactions to drugs like tetraethylammonium. Blood pressures in the intermediate zones between the normal range and the lower limit of hypertension or the upper limit of hypotension will also require sound interpretation. Readings in these areas may have significance, but again correlation with the clinical history and the objective observations should be made.

The possible sphere of application of the work presented in this paper is wide. If the definitions of the normal range of blood pressure should be modified as we have suggested, then the vast field of industrial medicine must take cognizance of such modifications. Blood pressure determination is part of every physical examination; in fact, too often it is unduly emphasized. With the spread of voluntary health and accident insurance, with retirement for illness, the concept of range of normal blood pressure will have increased application. In cases in which workmen's compensation is a consideration the blood pressure is of importance in determining the state of health and in resolving the relationship between the blood pressure and occupation, effort or trauma. In the military services during the last war blood pressure readings were taken routinely and standards were adopted for accepting and rejecting applicants [20] and also for appraising the need of medical care and retirement of those in service. In view of the continuous large Army, Air Force and Navy establishments the evaluation of blood pressure is still of great military importance. The proposed blood pressure standards may be useful in research. If high levels of blood pressure impair the heart, brain and kidneys, progress in preventive medicine will be made only when the normal and abnormal extremes of blood pressure are known.

Our observation that blood pressure readings higher than those accepted at present are nevertheless frequently normal should have a bearing on therapy. Since systolic pressures of 160 to 190 mm. of mercury and diastolic pressures of 100 to 110 mm. of mercury are not uncommonly observed after the age of 50, patients with such readings may be in good health, and efforts to lower the blood pressure by means of drugs or strict low sodium or rice diets may be unnecessary. In evaluating the status of these patients, one should first determine cardiac function. If coronary disease, cardiac enlargement or heart failure are present, therapy should be directed toward these conditions rather than toward the hypertension.

20. Master, A. M.: Borderline Hypertension and the Navy During the Emergency: Incidence of Hypertension Among the General Population, U. S. Nav. M. Bull. **41**: 52-56 (Jan.) 1943. Levy, R. L.; Stroud, W. D., and White, P. D.: Report of Reexamination of 4,994 Men Disqualified for General Military Service Because of Diagnosis of Cardiovascular Defects: Combined Study Made by Special Military Advisory Boards in Boston, Chicago, New York, Philadelphia and San Francisco, J. A. M. A. **123**: 937-944 (Dec. 11); 1029-1035 (Dec. 18) 1943.

RELATION OF BRUCELLOSIS AND MULTIPLE SCLEROSIS

CHARLES G. SPICKNALL, M.D.
Baltimore
LEONARD T. KURLAND, M.D.
Bethesda, Md.
B. N. CARLE, M.D.
Bethesda, Md.
and
LUTHER L. TERRY, M.D.
Baltimore

The possible relation of brucellosis to multiple sclerosis was suggested by Kyger and Haden [1] as the result of finding positive skin reactions to Brucella antigen in 115 of 118 patients with multiple sclerosis studied at the Cleveland Clinic. In view of the interest aroused by this report and the differences of opinion regarding interpretation of the findings, we decided to evaluate the brucellosis status of 20 multiple sclerosis patients from the Baltimore–Washington, D. C. area who were referred for study from clinics and hospitals or by private physicians.

The results of this study fail to support the findings of Kyger and Haden.[1]

METHODS

All patients were examined by a neurologist [2] and were accepted for study if the criteria for diagnosis of multiple sclerosis as established by Kolb, Langworthy and Cakrtova [3] were met. The patients were young or middle-aged adults, of whom 12 were white men, 7 were white women and 1 was a Negro woman. Their average age was 38 years; all were between 22 and 52 years old. The average duration of multiple sclerosis was 9.5 years; the mean age at the onset was 27.7 years. There was no significant relation between duration of disease at the time of this study and the age of the patient at the onset of multiple sclerosis. The clinical status was as follows: The disease was steadily progressive in 12 patients, in remission in 3 and static in 5. Twenty male patients who had been admitted to the Marine Hospital in Baltimore for illnesses other than multiple sclerosis were used as controls for the agglutination and skin reactions. Their average age was 49 years; 16 of the 20 were employed as seamen, 1 was a Negro and the others were white.

Routine urinalyses, hemoglobin and white blood cell determinations, serologic tests for syphilis, and the following additional tests were performed: Slide and tube agglutinations for brucellosis, blood cultures for Brucella organisms and a variety of spinal fluid tests. Spinal fluid specimens were tested in the usual manner, were cultured and/or inoculated into guinea pigs and were tested by Drs. Carl Lange and Albert Harris, at the New York State Health Department Laboratory, by their quantitatively standardized colloidal gold reaction.[4] Spinal fluid specimens were also submitted to Dr. Elvin A. Kabat, of Columbia University College of Physicians and Surgeons and the Neurological Institute, and were tested by quantitative immunochemical methods for gamma globulin.[5]

To be tested for Brucella skin sensitivity, the patients received intradermally 0.1 ml. of a 1:10 dilution of a suspension containing 2,000,000,000 killed Brucella organisms per milliliter (bovine and porcine organisms in equal numbers) and 0.1 ml.

From the United States Marine Hospital, Baltimore, and National Institute of Mental Health and Infectious Disease Laboratory, National Institutes of Health, Bethesda, Md.

1. Kyger, E. R., Jr., and Haden, R. L.: Brucellosis and Multiple Sclerosis: Cutaneous Reactions to Brucella Antigens, Am. J. M. Sc. **216**: 689-693 (Dec.) 1948.

2. O. R. Langworthy, M.D., Johns Hopkins Hospital, Baltimore.

3. Kolb, L. C.; Langworthy, O. R., and Cakrtova, M.: The Multiple Sclerosis Problem in Baltimore City, Am. J. Hyg. **35**: 1-14 (Jan.) 1942.

4. Lange, C., and Harris, A. H.: Interpretation of Findings in Cerebrospinal Fluid: III. Syndrome of Multiple Sclerosis, Am. J. Clin. Path. **19**: 16-24 (Jan.) 1949.

5. Kabat, E. A.; Glusman, N., and Knaub, V.: Quantitative Estimation of the Albumin and Gamma Globulin in Normal and Pathological Cerebrospinal Fluid by Immunochemical Methods, Am. J. Med. **4**: 653-662 (May) 1948.

of brucellergen. To rule out an abnormal degree of cutaneous reactivity, the patients were also tested intradermally with 0.1 ml. of histoplasmin (1:1,000); 0.1 ml. of coccidiodin (1:1,000) and 0.1 ml. (0.00002 to 0.005 mg.) of tuberculin (purified protein derivative).

Skin tests for brucellosis were not performed until after blood had been drawn for agglutination reactions. Readings were made at twenty-four and forty-eight hours for reactions to Brucella; other skin tests were read at forty-eight hours. The minimum requirement for positive skin reaction was edema of 0.5 cm. in diameter present at the site of inoculation at the time of reading.

RESULTS

There were no unusual findings on examination of hemoglobin, white blood cell counts, routine blood chemistry determinations or urine tests. Results of serologic reactions for syphilis were negative in all patients.

Examination of the spinal fluid of the multiple sclerosis patients revealed normal white blood cell counts and negative results in complement fixation tests for syphilis. Fifteen patients had spinal fluid which was abnormal by either the quantitatively standardized colloidal gold reactions or the quantitative immunochemical gamma globulin determination. Such results are in agreement within chance variation with those obtained on other groups of multiple sclerosis patients.[6]

No positive blood culture for Brucella was found on examination of 112 specimens from the multiple sclerosis patients. None of 40 guinea pigs inoculated with spinal fluid from 19 of the patients showed any evidence of brucellosis. Cultures of eleven spinal fluid specimens, including the one not inoculated into guinea pigs, were, likewise, negative. All cultures were made in trypticase soy broth and were incubated under 10 per cent carbon dioxide, with frequent subculturing for thirty days before being discarded. Negative reactions to agglutination for Brucella were found on the six spinal fluid specimens so tested.

Of the multiple sclerosis patients, 1 had positive reactions to a coccidiodin skin test, 5 had positive reactions to histoplasmin tests and 12 had postive tuberculin reactions to 0.00002 to 0.005 mg. of purified protein derivative. Results of tests of skin sensitivity to Brucella are shown in the table. Six patients showed 0.5 cm. or more of edema at the inoculation site in response to brucellergen when read at either twenty-four or forty-eight hours and 3 had similar reactions to the suspension of killed Brucella cells. Four other patients showed erythema of more than a very minor degree to brucellergen, and 7 had similar reactions to the Brucella suspension. No delayed reactions similar to those described by Harris[7] were observed. If the minimum requirement for a positive skin reaction is 0.5 cm. of edema at the inoculation site in forty-eight hours as recommended by McCullough,[8] only 1 of our patients had a positive brucellergen reaction and 3 had positive reactions to the suspension of killed Brucella cells. If less critical standards are used and erythema without edema is interpreted as positive, then 10 of the 20 multiple sclerosis patients could be considered to have shown positive reactions.

Of the patients who did not have multiple sclerosis, 1 had a positive reaction to a coccidiodin skin test, 6 had positive reactions to histoplasmin and 8 to tuberculin (0.00002 to 0.005 mg. of purified protein derivative). Brucella skin sensitivity results are shown in the table. Ten patients showed 0.5 cm. or more of edema at the inoculation site in twenty-four or forty-eight hours when inoculated with brucellergen, and 3 had similar reactions to the Brucella suspension. In 3 others erythema developed of more than a very minor degree to brucellergen, and 2 had similar reactions to the Brucella suspension. If the tests are read according to McCullough's recommendations,[8] 5 of the control patients had positive reactions to brucellergen and 3 had positive reactions to the suspension of killed cells. With less critical reading of the tests, including those with erythema and without edema, 13 control patients had positive reactions to brucellergen and 5 had positive reactions to the Brucella suspension. Thus, in this study, and contrary to the findings of Kyger and Haden,[1] there was no statistically significant difference observed in the skin sensitivity to Brucella antigens between 20 multiple sclerosis patients and 20 patients with other diseases.

Number of Positive Skin Reactions to Brucella Antigens and Positive Agglutination Titers in 20 Multiple Sclerosis Patients and 20 Control Patients

	Multiple Sclerosis Patients	Control Patients
Brucellergen *		
24 hours	6	9
48 hours	1	5
Brucella suspension *		
24 hours	1	3
48 hours	3	3
Agglutinations †		
National Institutes of Health		
Tube	1	4
Marine Hospital		
Tube	3	3
Plate	1	1

* 0.5 cm. or more of edema at time of reading.
† Agglutination titer of 1:20 or higher.

Five of twenty-three specimens of serum from multiple sclerosis patients tested by Kyger and Haden[1] elicited positive agglutination reactions of a low or moderate degree. The two highest titered serums (1:160 and 1:320) were from patients who had had skin tests four to five weeks previously. The remaining positive titers ranged from 1:20 to 1:80.

In the present study Brucella agglutination tests were carried out in the laboratory of the Marine Hospital in Baltimore with a commercial rapid plate antigen and with a tube antigen from the Bureau of Animal Industry of the United States Department of Agriculture. Further agglutination studies were done in the Infectious Disease Laboratory at the National Institutes of Health, using the Bureau of Animal Industry Brucella tube antigen.

The agglutination test results are shown in the table. Five of the patients who did not have multiple sclerosis had low titers of Brucella agglutinins, ranging from 1:10 to 1:80, and 2 of the multiple sclerosis patients had titers of 1:20. One multiple sclerosis patient revealed a positive agglutination reaction of a more significant degree (1:640). This patient had been admitted to the Marine Hospital in Baltimore in October 1948 as a special study case. At that time

6. Lange and Harris.[4] Kabat, Glusman and Knaub.[5] von Storch, T. J. C.; Harris, A. H., and Lawyer, J., Jr.: Cerebrospinal Fluid Examination in Diagnosis of Multiple Sclerosis, New York State J. Med. **49**: 2145-2148 (Sept. 15) 1949. Kabat, E. A.; Freedman, D. A.; Murray, J. P., and Knaub, V.: A Study of the Crystalline Albumin, Gamma Globulin and Total Protein in the Cerebrospinal Fluid of One Hundred Cases of Multiple Sclerosis and in Other Diseases, Am. J. M. Sc. **219**: 53-64 (Jan.) 1950.

7. Harris, H. J.: Brucellosis (Undulant Fever) Clinical and Subclinical, New York, Paul B. Hoeber, Inc., 1941.

8. McCullough, N. B.: Laboratory Tests in the Diagnosis of Brucellosis, Am. J. Pub. Health **39**: 866-869 (July) 1949.

he had a poorly defined chronic illness, and brucellosis was suspected because of a high agglutinin titer, which at that time was 1:2,560. Repeated attempts during this admission failed to isolate Brucella organisms from his blood, bone marrow or spinal fluid. Clinical studies revealed findings fairly typical for multiple sclerosis, and the diagnoses of multiple sclerosis and chronic brucellosis were made. When we decided to study patients with multiple sclerosis from the standpoint of brucellosis, this patient was included in the group, even though the diagnosis was brucellosis. This might be considered as biasing the sample, but it seemed desirable to include him to see whether any of the other patients might have had a similar experience which could be measured and compared with his.

In addition to his agglutinin titer, this patient is one of the 3 multiple sclerosis patients who had a positive skin reaction to the suspension of killed Brucella cells. He had not had a previous skin test and had never received cholera vaccine. His reaction to brucellergen was negative. Repeated attempts to isolate Brucella from him on the second admission also failed.

COMMENT

Brucella infection is established beyond question only by isolation of the causative organism from the blood or tissues. Since this is often difficult in chronic infections, the diagnosis frequently depends on the evaluation of other criteria. Except for the isolation of the organism, however, no one symptom, finding or laboratory test should be considered as diagnostic. Positive reactions to skin or agglutination tests in the absence of other findings do not necessarily establish the diagnosis of brucellosis.

The criteria for interpretation of skin tests in brucellosis are not uniformly established, and the number of organisms included in various preparations is not standardized. Interpretation of the intradermal test is one of the most disputed subjects in connection with this disease. Spink [9] has referred to the intradermal test as "the most abused diagnostic procedure," and Eisele [10] stated that skin tests "provide relatively little useful information and are commonly misused." The need for care in reading skin reactions is pointed out by McCullough [8] with the statement that "the test is commonly misread, with transient erythema being considered as a positive test." The National Research Council Subcommittee on the Public Health Aspects of Brucellosis unanimously condemned the routine use of Brucella antigens for skin tests in the diagnosis of brucellosis.[11]

In contrast to these rather pessimistic views regarding the skin test, Harris,[7] one of the strongest proponents of this type of test, uses a suspension of killed Brucella organisms and feels that it is of definite value as a diagnostic aid. He states, "If it is kept clearly in mind that the test must be carefully interpreted, its limitations recognized, that it should not be done prior to the initial blood agglutination test, and that it must be interpreted in the light of clinical evidence, the culture, the blood agglutinations, and the opsonocytophagic tests, it is of tremendous value." Harris [7] has not stated the number of organisms he uses for the skin test, and his criteria for interpreting the results of a test as positive are not well defined.

Kyger and Haden [1] used 0.04 ml. of a suspension of killed Brucella organisms (6,000,000,000 per milliliter) for giving skin tests to their patients, and they interpreted the test according to the criteria of Harris.[7] They also tested 55 of their multiple sclerosis patients with brucellergen. Reactions in 53 patients were considered positive on the basis of the development of edema and erythema between twenty-four and forty-eight hours after injection. The degree of reaction necessary for a positive test was not stated.

Considering the lack of agreement on the proper method of performing and interpreting the skin test in brucellosis, it is apparent that this test when used alone is of dubious value as a tool in ascertaining the degree of Brucella infection present in an individual or population group.

Interpretation of the agglutination test in brucellosis is also subject to much controversy. The lack of standardized antigens and uniform technics in performing this test leads to frequent discrepancies in the results reported by different laboratories.[12] Aside from this weakness of the test, the value of the agglutination results obtained by Kyger and Haden [1] on 23 of their multiple sclerosis patients may be questioned on another basis. There are many reports of positive agglutination reactions of similar frequency and magnitude which have been observed in survey tests made on large numbers of serums collected for routine Wassermann and other examinations.[13] Such findings detract from the significance of the generally low agglutinin titers reported in their multiple sclerosis patients.

In addition to the dermal and serologic observations in their multiple sclerosis patients, Kyger and Haden [1] reviewed the case histories of 560 patients with chronic brucellosis and found 2 to have multiple sclerosis also. Twenty-eight others had disturbances of the second, sixth or eighth cranial nerves. No criteria for the diagnosis of brucellosis in any of these patients were presented. It was not inferred that those patients with localized neurologic disturbances had multiple sclerosis. Although 2 cases of multiple sclerosis in 560 persons is higher than "expected" (the prevalence in Ohio is thought to be about 50 per 100,000 population), chance, as a factor accounting for such a finding, cannot be ruled out when one is dealing with such small numbers. It is recognized that a large variety of bacterial agents are capable of causing neurologic disorders, and it is possible that brucellosis may produce lesions in the central nervous system resulting in a syndrome which would be difficult to differentiate from multiple sclerosis.

Kyger and Haden [1] report that "the geographic distribution of multiple sclerosis and brucellosis are not incompatible with some relationship. . . . In the United States, the areas of greatest frequency for multiple sclerosis are in the Pacific Northwest and in the Great Lakes Basin. Brucellosis of the abortus type is also prevalent in those areas."

Accurate statistics on morbidity for multiple sclerosis and brucellosis in the United States are not available. Human brucellosis occurs most frequently as an accidental infection in persons handling infected livestock or consuming infected raw milk. Although the distri-

9. Spink, W. W., and Hall, W. H.: The Diagnosis and Treatment of Brucellosis, M. Clin. North America **29**: 343-362 (March) 1945.
10. Eisele, C. W.: Some Problems in the Diagnosis of Chronic Brucellosis, M. Clin. North America **31**: 182-197 (Jan.) 1947.
11. Public Health Aspects of Brucellosis, National Research Council, Bethesda, Md., May 9-10, 1949.
12. Eisele, C. W.; McCullough, N. B., and Beall, G. A.: Discrepancies in the Agglutination Test for Brucellosis as Performed with Various Antigens and as Reported from Different Laboratories, J. Lab & Clin. Med. **32**: 847-853 (July) 1947.
13. Carpenter, C. N.; Boak, R., and Chapman, O. D.: The Significance of Brucella Abortus Agglutinins in Human Serum, J. Immunol. **17**: 65-83 (July) 1929. Jordan, C. F.: Infection in the Epidemiology of Undulant Fever in the General Population and in Selected Groups in Iowa, J. Infect. Dis. **48**: 526-540 (June) 1931.

bution based on reported morbidity is not reliable, it is generally agreed that brucellosis rates are highest among rural people. On the other hand, multiple sclerosis is thought to be as prevalent, if not more so, in urban areas.

Recent statistics on multiple sclerosis mortality [14] reveal higher rates in the North and in Canada than in the South. Human brucellosis is poorly reported, and comparisons with multiple sclerosis mortality distributions have little meaning. However, there is no greater correlation between the geographic distribution of multiple sclerosis and bovine brucellosis than between the geographic distribution of rheumatic fever [15] or Schick-positive reactors [16] and multiple sclerosis mortality.[14]

The cause of multiple sclerosis is still regarded as unknown, and there is, as yet, no specific diagnostic test for this condition. Whether it is a polyetiologic syndrome or a disease entity is still uncertain. If it is the former, it is conceivable that brucellosis might be a predisposing or precipitating factor in some cases. In the present study, skin reactions to Brucella antigens were no higher among multiple sclerosis patients than among patients with other diseases. Only 1 of 20 patients had a high Brucella agglutinin titer, and the number of patients with low titers in both the multiple sclerosis patients and patients without this disease were of a degree and frequency similar to that experienced in routine serum surveys.

CONCLUSION

The evidence presented here fails to support the previously suggested impression that there is a strong and consistent relation between brucellosis and multiple sclerosis.

BRUCELLOSIS AND MULTIPLE SCLEROSIS

C. WESLEY EISELE, M.D.
NORMAN B. McCULLOUGH, M.D.
and
GRACE A. BEAL, Ph.D.
Chicago

A relation between brucellosis and multiple sclerosis has recently been postulated by Kyger and Haden.[1] They reported a high incidence of cutaneous sensitivity to Brucella antigens in patients with the diagnosis of multiple sclerosis. In 118 patients, results of intradermal tests with killed Brucella organisms were reported as positive in 115. The possibility of multiple sclerosis being etiologically related to brucellosis was proposed largely on the basis of these findings. Widespread interest has been stimulated by this implied relation. In several instances which have come to our attention, patients with multiple sclerosis have been treated by methods believed to be useful in brucellosis. A further investigation of a possible relation between these two diseases seemed desirable.

MATERIAL AND METHODS

Subjects.—Fifty-two patients with the diagnosis of multiple sclerosis were studied for evidence of brucellosis or of previous exposure to Brucella. The diagnosis of multiple sclerosis had been established by neurologists on the staff of the University of Chicago Clinics, and the cases were unselected except for the exclusion of any in which the diagnosis was at all questionable.

The clinical material had the following characteristics: Thirty-four patients were female and 18 were male, giving a sex ratio of approximately 2 to 1. The average age of the patients was 36.9 years. There were 9 patients from 20 to 29 years of age, 23 from 30 to 39 years, 16 from 40 to 49 years and 4 from 50 to 55 years. The age at the time of the appearance of the earliest symptoms of multiple sclerosis varied from 17 to 42 years with the range as follows: 19 years or younger, 4 patients; 20 to 29 years, 23; 30 to 39 years, 22, and 40 years or more, 3. The duration of the disease at the time of this study varied from three weeks to thirty years, the average duration being slightly more than seven years. Nine patients, or 17 per cent of the series, had symptoms for one year or less while 28, or 54 per cent, had suffered with the disease for ten years or more. Many of the patients with long-standing disease had suffered recent exacerbations and extensions prompting them to come to the clinic either initially or for a return visit, at which time the brucellosis tests were made. At the time of this study, 26 of the patients had been observed at the University of Chicago Clinics for two years or more and 14 had been observed for five to sixteen years.

The normal control series for this study consisted of 104 healthy male inmates of a state penal institution who were recently tested during another investigation. The same methods and materials were used. These subjects were mostly young adult males with an average age of 36.1 years and a pattern of age distribution very similar to that of the multiple sclerosis series. Volunteers for the control series had been carefully selected to exclude anyone who gave a history of previous exposure to Brucella, of rural residence, or of illness suggestive of brucellosis. No volunteer was included who had been employed as a farmer, packing house worker, butcher or dairyman. Those who had received cholera vaccine were similarly rejected.

Methods.—Each patient was examined for evidence of brucellosis or of past or present exposure to Brucella by means of three commonly accepted tests—the agglutination test, the opsonocytophagic test and the brucellergen skin test.

The agglutination test was performed in each instance by both the rapid slide method and the standard test tube method. In the latter, the tubes were incubated at 37 C. (98.6 F.) for forty-eight hours, an antigen routinely used in our laboratory being employed. The antigen was prepared from several freshly isolated, smooth, virulent strains of Brucella and was carefully standardized photoelectrically and also by comparison with preceding lots of antigen on selected antiserums. The lowest serum dilution used was 1 to 20. The rapid slide test was performed with a commercial antigen yielding results generally consistent with those of the test tube method.

The opsonocytophagic test was performed on freshly drawn blood according to Huddleson.[2]

14. Kurland, L. T.: Multiple Sclerosis, Morbidity and Mortality in the United States and Canada, Tr. Am. Neurol. A., to be published.

15. Paul, J. R.: The Epidemiology of Rheumatic Fever and Some of Its Public Health Aspects, New York, Metropolitan Life Insurance Company, 1943.

16. Worcester, J., and Cheever, F. S.: The Schick Status of Eighteen Thousand Adult Males, New England J. Med. **240**: 954-960 (June 16) 1949.

Dr. Richard Richter and Dr. Douglas Buchanan contributed their series of multiple sclerosis patients for this study.

From the Department of Medicine, University of Chicago. Dr. McCullogh is also fro mthe Microbiological Institute of the National Institutes of Health, Public Health Service, Bethesda, Md.

1. Kyger, Jr., E. R., and Haden, R. L.: Brucellosis and Multiple Sclerosis, Am. J. M. Sc. **216**: 689-693 (Dec.) 1948.

2. Huddleson, I. F.: Brucellosis in Man and Animals, New York, Commonwealth Fund, 1943.

The brucellergen intradermal skin test was performed and interpreted with modifications according to Huddleson.[2] The tests were examined at twenty-four and forty-eight hours. Edema and induration of 0.5 cm. diameter at forty-eight hours was deemed the minimal significant response.

The data were complete for all patients in both series with the exception of 2 patients with multiple sclerosis, for whom the results of the opsonocytophagic test were discarded because of unsatisfactory blood samples and 4 persons in the control series in whom the skin test was omitted.

RESULTS

Forty-five patients, or 86.5 per cent of the multiple sclerosis series, showed entirely negative results in all three tests used. In the control series 74, or 71.1 per cent, exhibited normal results to all tests.

Results of the brucellergen skin test were completely negative in all except 2 patients in the multiple sclerosis series. In 1 patient the reaction to the test was definitely positive at forty-eight hours with induration measuring 2.5 cm. in diameter. A repetition of the skin test on this patient ten months later produced induration measuring 1.2 cm. in diameter at forty-eight hours. Results of the agglutination test and opsonocytophagic test on this patient were negative. The other patient had a minimal reaction to the brucellergen, the forty-eight hour induration being 0.6 cm. in diameter. Thus only 2, or 3.8 per cent of the patients, had demonstrable dermal sensitivity to brucellergen. In the control series 18, or 17.3 per cent, had some degree of dermal reaction to brucellergen. In six instances, the forty-eight hour induration measured less than 1 cm. in diameter, in eight it was between 1 and 2 cm. and in four it was more than 2 cm. This represents an incidence of cutaneous sensitivity more than four and a half times greater than that observed in the multiple sclerosis series.

Results of Tests on Seven of the Fifty-Two Patients with Multiple Sclerosis *

Case No.	Agglutinins† Rapid Method	Agglutinins† Tube Method	Opsonocytophagic Test‡ Ma	Mo	Sl	Neg.	Brucellergen Skin Test Induration at 48 Hours
6	Neg.	Neg.	9	0	0	25	0.6 × 0.6 cm.
9	Neg.	Neg.	0	0	0	25	2.5 × 2.5 cm.
20	1:25P	1:20	20	5	0	0	Neg.
27	1:100P	1:80	16	2	3	4	Neg.
44	1:100P	1:160	0	0	5	20	Neg.
21	Neg.	Neg.	0	0	4	21	Neg.
3	Neg.	Neg.	3	2	9	11	Neg.

* Results of all tests on the remaining 45 patients were completely negative.

† P, partial agglutination.

‡ Ma, number of cells showing marked phagocytosis; Mo, number of cells showing moderate phagocytosis, and Sl, number of cells showing slight phagocytosis.

Results of the agglutination test were positive, mostly in low titers, in 3 patients of the multiple sclerosis series and in 8 subjects of the control series. In only 2 patients in each series were the titers as high as 1 : 80. These incidences are inconsequential and not significantly different.

The opsonocytophagic test showed some opsonic activity in 5 of the patients with multiple sclerosis (including the 3 having some agglutinins) and in 13 persons in the control series.

The table gives the results of the tests in those 7 persons in the multiple sclerosis series who showed any degree of response to any of the tests. It should be noted that the responses were of sufficient magnitude to be of even minimal significance in only 5 persons, the dermal sensitivity in case 9, the agglutinins in case 44, the opsonins in cases 20 and 3 and the agglutinins and opsonins in case 27.

COMMENT

The results distinctly show that in our series of 52 patients with multiple sclerosis there is no evidence of a significant immunologic or allergic response to Brucella. The incidence of positive results in tests is even less than that of the control series in spite of the fact that the controls had been selected to exclude those with presumptive histories of exposure to Brucella.

Brucellergen was selected as the antigen of choice for skin testing on the basis of being the best standardized and also the most reliable and specific of the many agents available. Although Brucella vaccine was principally used in the Kyger and Haden series, their additional testing of 55 cases with brucellergen indicated an excellent correlation between the two antigens.

Clearly the present study does not support the alleged relation between brucellosis and multiple sclerosis.

SUMMARY AND CONCLUSIONS

No evidence of a relation between brucellosis and multiple sclerosis was found by the use of Brucella agglutination tests, opsonocytophagic tests and brucellergen skin tests performed on 52 patients with multiple sclerosis.

RHEUMATOID ARTHRITIS

Effects of Certain Steroids Other Than Cortisone and of Some Adrenal Cortex Extracts

HOWARD F. POLLEY, M.D.
and
HAROLD L. MASON, Ph.D.
Rochester, Minn.

Observation of the prompt and pronounced effects of cortisone on rheumatoid arthritis and related diseases has been followed by studies to determine whether specific structural requirements for antirheumatic action could be elucidated. Twelve steroid substances other than cortisone and four adrenal cortex extracts have been administered in twenty-two trials on 11 patients (cases 1 to 11) who had rheumatoid arthritis with and without associated rheumatoid spondylitis. Ten of these 11 patients also received cortisone, pituitary adrenocorticotropic hormone (ACTH) or both. Results of the administration of these substances served as a standard against which the effects of the other preparations were compared.

Effects of cortisone (or pituitary adrenocorticotropic hormone) on rheumatoid arthritis have been classified as very marked, marked and moderate.[1] In this present study a very marked antirheumatic effect is graded as 4, a marked response as 3 plus to 3, a moderate response 2 plus to 2, mild to minimal effects 1 plus to 1 minus, and no effect is grade 0.

Each preparation was given entirely without the patient's knowledge of the nature of the material. In some instances inert control substances also were used during the investigation.

Chemically classified, cortisone belongs to the Δ^4-pregnene series. More specifically, it is a 17,

From the Division of Medicine (Dr. Polley) and the Section on Biochemistry (Dr. Mason), Mayo Clinic, Rochester, Minn.

1. Hench, P. S.; Kendall, E. C.; Slocumb, C. H., and Polley, H. F.: Effects of Cortisone Acetate and Pituitary ACTH on Rheumatoid Arthritis, Rheumatic Fever and Certain Other Conditions, Arch. Int. Med. 85: 545-666 (April) 1950.

21-dihydroxy-3, 11, 20-triketo steroid with a double bond between carbon atoms 4 and 5 (chemically indicated by the Δ sign followed by the carbon atom with the lower number, fig. 1). The rationale for use of various steroids was based on their structural similarity to cortisone and their availability.

Doses of the different preparations used varied and are described in subsequent paragraphs.[2] The possibility that more extended trial with massive doses might produce some conversion by the body to an antirheumatically active substance was considered but not included in this study. Such an occurrence would not be indicative of antirheumatic activity equal to, or exceeding, that of cortisone.

Because of the effects of cortisone on urinary excretion of 17-ketosteroids and corticosteroids,[1] observations of the effects on these urinary substances were made a part of this study of steroids other than cortisone.

STEROIDS OTHER THAN CORTISONE: I. VARIATIONS AT THE CARBON 11 POSITION

17-Hydroxycorticosterone (Compound F of Kendall).—Of the steroids used, the most minor structural alteration from cortisone occurs in 17-hydroxycorticosterone (fig. 2). At the important carbon 11 position there is a hydroxyl radical in place of the ketone group

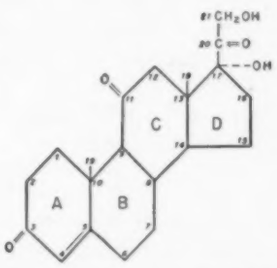


Fig. 1.—Chemical formula of cortisone (11-dehydro-17-hydroxycorticosterone or compound E of Kendall). Location of the carbon atoms of the steroid nucleus and side chains are indicated numerically, and rings are indicated alphabetically. Cortisone acetate differs from cortisone only by the substitution of the acetate radical (OAc) for one of the hydrogen atoms at carbon 21 (-CH_2OAc instead of -CH_2OH). Many other steroid substances are prepared in the form of the acetate. Presence or absence of the acetate radical at this position was found not to be an influencing factor in antirheumatic activity of cortisone. In comparing chemical structure of the steroids used in this study (fig. 2) presence or absence of the OAc group at carbon 21, therefore, was not considered one of the variants.

of cortisone. Since hog adrenals are the only available source, this steroid is much less abundant than cortisone. Our supply in the last year has permitted trial on 1 patient, a woman 49 years old, whose severe rheumatoid arthritis had been present three years and who had responded well to cortisone and to pituitary adrenocorticotropic hormone (case 1).[3] A total of 0.9 Gm. of 17-hydroxycorticosterone was given intramuscularly in twelve days of metabolic study (March 31 to April 11, 1949, inclusive; table 1). Previously confined to a

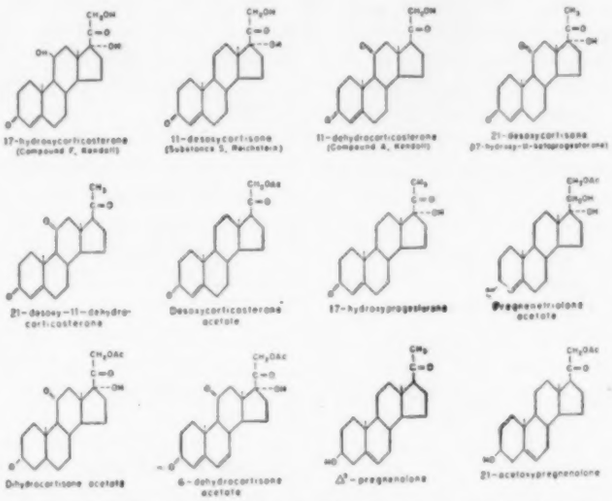


Fig. 2.—Chemical structure of steroid substances used in this study showing variations from cortisone acetate in the structures of preparations used (fig. 1).

bed or wheel chair, the patient became ambulatory. The sedimentation rate (Westergren) in one hour decreased from 85 to 24 mm. within twelve days (fig. 3). The over-all relief of rheumatoid arthritis was an estimated 60 per cent, as compared with 75 per cent relief from 1.0 Gm. of cortisone in ten days and 85 per cent relief

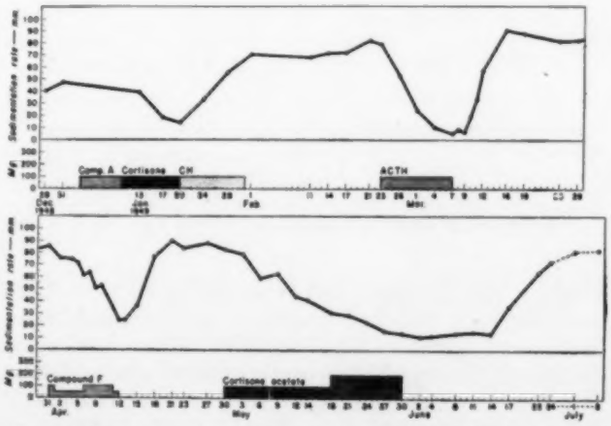


Fig. 3.—Curve of sedimentation rate in case 1 showing the result of administration of 17-hydroxycorticosterone (compound F of Kendall). Comparison can be made with the use of 11-dehydrocorticosterone (compound A), cortisone, the control substance (cholesterol, CH), pituitary adrenocorticotropic hormone (ACTH) and cortisone acetate.

from 1.2 Gm. of pituitary adrenocorticotropic hormone in twelve days. The antirheumatic effect of 17-hydroxycorticosterone in this case was classified as grade 3.

2. The following persons and institutions supplied the various preparations used in this study: Dr. E. Gifford Upjohn, Medical Director, and Dr. W. J. Haines of the Upjohn Company, 17-hydroxycorticosterone (compound F), lipo-adrenal cortex extract (double strength), adrenal cortex extract in propylene glycol and adrenal cortex extract capsules; Dr. Percy Julian of the Glidden Company, 11-desoxycortisone (substance S of Reichstein), Δ^4-pregnene-17α, 20β, 21-triol-one 20, 21-diacetate (pregnenetriolone acetate) and 17-hydroxyprogesterone; Dr. Thomas Gallagher of the Sloan-Kettering Institute, an additional supply of 11-desoxycortisone and 21-desoxycortisone (17-hydroxy-11-ketoprogesterone); Dr. A. E. Osterberg of the Abbott Laboratories, some of the 11-desoxycortisone; Dr. Randolph Major, Vice President, and Dr. J. M. Carlisle, Medical Director, of Merck & Co., Inc., 11-dehydrocorticosterone (compound A of Kendall), dihydrocortisone acetate and 21-desoxy-11-dehydrocorticosterone; Ciba Pharmaceutical Products, Inc., desoxycorticosterone acetate; Dr. Edward W. Henderson, Medical Director, Schering Corporation, Δ^5-pregnenolone, and Dr. G. E. Farrar, Jr., Medical Director of Wyeth, Inc., Δ^5-pregnene-3β, 21-diol-20-one 21-mono-acetate (artisone).

3. Cases in this paper have been numbered 1 to 11. Since data on 10 of these cases have been reported previously under other case numbers, these are listed here for those who wish to refer to the other articles. Cases 6, 23, 15, 20, 3, 13, 17, 14 and 11 in two previous publications by Sprague and associates[4] and Hench and co-workers[1] are cases 1 to 9 in this article, case 10 has not been included in any previous publication and case 11 in this article was case 8 in the two previous publications just mentioned.

4. Sprague, R. G., and others: Observations on the Physiologic Effects of Cortisone and ACTH in Man, Arch. Int. Med. **85**: 199-258 (Feb.) 1950.

Further trials using 17-hydroxycorticosterone acetate are being undertaken because of the close structural and physiologic similarity between this substance and cortisone, because of the isolation of 17-hydroxycorticosterone rather than cortisone from the urine of rheumatoid patients given antirheumatic doses of pituitary adrenocorticotropic hormone[5] and because of experiments showing that perfusion of the isolated adrenal glands with this hormone is followed by elaborations of 17-hydroxycorticosterone.[6]

11-Desoxycortisone (Substance S of Reichstein).—Because it differs from cortisone only by the absence of oxygen at carbon 11, it was hoped that this steroid, which can be synthesized from a sterol of soybeans, would have cortisone-like activity in rheumatic diseases. Negative results, however, have been reported by Freyberg[7] and Rosenberg.[8]

We have given this substance intramuscularly to 2 women and 1 man whose rheumatoid arthritis had lasted five months, three years and three years, respectively. The 2 women had responded well to cortisone, and the man had had excellent antirheumatic effects from both cortisone and pituitary adrenocorticotropic hormone. Doses of 11-desoxycortisone were as follows: 0.95 Gm. within seven days (Sept. 1 to 7, 1949, case 2), 1.7 Gm. within eight days (Oct. 3 to 10, 1949, case 3) and 1.5 Gm. in seven days (Oct. 25 to 31, 1949, case 4). Sedimentation rates were unchanged or somewhat increased. The sedimentation rate in case 2 was 78 mm. on September 1 and 79 mm. on September 8; in case 3, 57 mm. on October 3 and 58 mm. on October 10; in case 4, 49 mm. on October 25 and 68 mm. on October 31.[9] Even though daily doses were generally 200 to 300 mg., no antirheumatic activity was noted.

STEROIDS OTHER THAN CORTISONE: II. CHANGES IN THE SIDE CHAIN

11-Dehydrocorticosterone (Compound A of Kendall).—Compared with cortisone, this hormone lacks only the hydroxyl radical at carbon 17. It has the simplest chemical structure of the carbon 11 oxygenated adrenal hormones. However, previous trial of 11-dehydrocorticosterone on patients who had Addison's disease suggested that it had less effect on carbohydrate and protein metabolism than cortisone.

This hormone was given intramuscularly to 2 women and 1 man whose rheumatoid arthritis was of three years', five years' and five years' duration, respectively. The rheumatism of each of these patients had previously or subsequently responded well to cortisone, and 1 patient also had an excellent response to pituitary adrenocorticotropic hormone. Daily doses of 100 mg. were given intramuscularly for seven, nine, and fourteen days, respectively (Jan. 3 to 9, 1949, in case 1; April 5 to 13, 1949, in case 5, and March 30 to April 12, 1949, in case 6). No significant effect on joints was observed from these doses given prior to, after a single course or between courses of, cortisone. Sedimentation rates were insignificantly decreased or increased in each instance: from 47 mm. (Dec. 31, 1948) to 39 mm. (Jan. 13, 1949) in case 1; from 14 mm. (March 30, 1949) to 44 mm. (April 14) in case 6, and from 17 mm. (April 5) to 36 mm. (April 12) in case 5.

Because of its physiologic as well as structural similarity to cortisone, further studies with larger daily doses of 11-dehydrocorticosterone should be made.

21-Desoxycortisone (17-hydroxy-11-ketoprogesterone).—This preparation has no oxygen atom at carbon 21. An intensive short trial of large dosages given intramuscularly (200 to 300 mg. daily for five days) was made from Dec. 20 to Dec. 24, 1949, in case 3. The sedimentation rate on December 20 was

TABLE 1.—*Steroid Compounds Used for Rheumatoid Arthritis*

Steroid	Variation from Cortisone	Daily Dose and Duration of Administration, Mg./Days	Total Dose, Gm.	Antirheumatic Effect, Grade*
17-Hydroxycorticosterone (compound F of Kendall)	— OH at C-11	50-100/12	0.9	3
11-Desoxycortisone (substance S of Reichstein)	= O absent at C-11	100-300/7-8	0.95-1.7	0
11-Dehydrocorticosterone (compound A of Kendall)	— OH absent at C-17	100/7-14	0.7-1.4	0
21-Desoxycortisone (17-hydroxy-11-ketoprogesterone)	= O absent at C-21	200-300/5	1.1	0
21-Desoxy-11-dehydrocorticosterone	— OH absent at C-17 and C-21	100-300/6	0.9	0
Desoxycorticosterone acetate	= O absent at C-11 and — OH absent at C-17	5/8	0.04	0
17-Hydroxyprogesterone	= O absent at C-11 and — OH absent at C-21	50-100/9	0.85	0
Pregnenetriolone acetate	= O absent at C-11 and — OH absent at C-20	50-300/10	0.5-1.7	0
Dihydrocortisone acetate	Double bond absent between C-4 and C-5	25-300/7-9	0.6-1.9	0
6-Dehydrocortisone acetate	Double bond absent between C-6 and C-7	50-300/6	1.0	0
△5-Pregnenolone	— OH at C-3; = O absent at C-11; — OH absent at C-17 and C-21; double bond between C-5 and C-6	100-300/10	2.6	0
21-Acetoxypregnenolone	— OH at C-3; = O absent at C-11; — OH absent at C-17; double bond between C-5 and C-6	300/22	6.6	0

* Antirheumatic effect on grading basis of 0 to 4 as defined in the text.

5. Mason, H. L.: Isolation of Adrenal Cortical Hormones From Urine: 17-Hydroxycorticosterone and 17-Hydroxy-11-dehydrocorticosterone, J. Biol. Chem. **182**: 131-149 (Jan.) 1950.

6. Heckter, O.: Characterization of Corticosteroids Released From Perfused Cow Adrenals, Federation Proc. **9**: 58-59 (March) 1950.

7. Freyberg, R. H.: Effects of Cortisone and ACTH in Rheumatoid Arthritis, Bull. New York Acad. Med. **26**: 206-211 (April) 1950.

8. Rosenberg, E. F.: (a) Experiences with Compound E (Cortisone), Other Adrenal Cortical Steroids and Pituitary Adrenocorticotrophic Hormone, Proc. Inst. Med., Chicago **18**: 95-96 (April 15) 1950. (b) Personal communication to the authors.

9. The changes in sedimentation rates in these and other cases included in this study are graphically compared with changes occurring during administration of cortisone and pituitary adrenocorticotrophic hormone in the same patients in illustrations accompanying case histories of these patients in the article by Hench, Kendall, Slocumb and Polley.[1]

44 mm. and on December 24, 39 mm. Symptomatically as well as objectively no antirheumatic effect occurred.

21-Desoxy-11-dehydrocorticosterone.—This steroid lacks the hydroxyl radical at carbon 17 and the oxygen atom at carbon 21. This substance was given to a male rheumatoid patient (case 3) for 6 days (May 10 to 15, 1950). The initial dose was 300 mg. intramuscularly; on the second day 200 mg. and thereafter 100 mg. daily for four days. The sedimentation rate on May 9 was 109 mm. and on May 16, 115 mm. No evidence of antirheumatic activity was observed.

STEROIDS OTHER THAN CORTISONE: III. CHANGES AT THE CARBON 11 POSITION AND IN THE SIDE CHAIN

Desoxycorticosterone Acetate (DCA).—In this steroid the oxygen atom is absent at both carbon 11 and carbon 17. The ready availability and replacement value of this steroid in Addison's disease justified trial of this substance in rheumatoid arthritis. But this drug in amounts used in Addison's disease has not benefited rheumatic patients according to Thorn and his co-workers [10] and Spies and Stone.[11]

Larger (15 to 45 mg. per day) and more prolonged dosage (for about two weeks) were equally ineffective in 1938.[12] More recently, doses of 50 to 75 mg. daily for one week were found ineffective by Rosenberg.[8]

Forty milligrams of desoxycorticosterone acetate was given intramuscularly in eight days (April 9 to 16, 1949) in case 7. The patient, a man 23 years old with severe rheumatoid arthritis and rheumatoid spondylitis, gained 6 pounds (2.7 Kg.); this gain was not accounted for by appetite and probably was the result of action of desoxycorticosterone acetate on water and electrolytes. There was, however, no antirheumatic effect. His sedimentation rate increased from 64 mm. (April 9) to 83 mm. (April 16), but there was no measurable aggravation of arthritic symptoms.

Our trial of desoxycorticosterone acetate combined with ascorbic acid and various modifications thereof has been carried out by Dr. Paul Bilka. His results will be reported soon.

17-Hydroxyprogesterone.—In this steroid the oxygen atom is absent at both the carbon 11 and carbon 21 positions. This steroid does not have any antirheumatic effect according to Freyberg [7] and Rosenberg.[8] Our supply of this preparation was sufficient for trial in 1 rheumatoid patient who subsequently responded well to cortisone. 17-Hydroxyprogesterone was given intramuscularly; an initial dose of 50 mg. was followed by 100 mg. daily for eight more days (Aug. 19 to 27, 1949, case 2). There was no evidence of antirheumatic activity. The patient's sedimentation rate increased from 68 mm. (August 18) to 75 mm. (August 30).

Pregnenetriolone Acetate.—This steroid has no oxygen atom at the carbon 11 position, and it has a hydroxyl group instead of a ketone group at the carbon 20 position. It was given in daily doses of 200 to 300 mg. for four days to 1 rheumatoid patient by Spies and Stone [11] and in doses of 100 to 200 mg. daily for two weeks by Rosenberg.[8] No improvement comparable to the effect of cortisone or pituitary adrenocorticotropic hormone and no objective changes were noted.

In our study two trials of ten days each (Nov. 11 to 20 and Nov. 28 to Dec. 7, 1949) were carried out on a 29 year old man with severe rheumatoid arthritis of three years' duration (case 3). Previously he had responded well to both cortisone and pituitary adrenocorticotropic hormone. Daily intramuscular doses ranged from 50 to 300 mg., and total doses were 0.5 to 1.7 Gm. Sedimentation rates varied slightly from 43 to 29 to 37 mm. between November 11 and December 7. No antirheumatic activity was observed.

STEROIDS OTHER THAN CORTISONE: IV. CHANGES IN DEGREE OF SATURATION IN THE A AND B RINGS

The influence of the presence or position of the double bond was tested by use of two additional substances (table 1).

Dihydrocortisone Acetate.—In this compound there is no double bond between carbon atoms 4 and 5 as occurs in cortisone. This substance, synthetically, is a direct precursor of cortisone acetate. It seemed possible that the Δ^4 double bond might be put into the molecule by physiologic processes of the body.

Doses up to 300 mg. per day were given intramuscularly to 2 rheumatoid patients both of whom had experienced excellent antirheumatic effects from cortisone. Total doses were 0.6 Gm. in seven days (Aug. 4 to 10, 1949) in case 2 and 1.9 Gm. in nine days (Nov. 9 to 17, 1949) in case 4. No antirheumatic effect occurred. Sedimentation rates of 1 patient (case 2) were increased from 63 mm. (August 4) to 96 mm. (August 9), and those of the other patient (case 4) were unchanged (73 mm. on November 9 and 74 mm. on November 18).

6-Dehydrocortisone Acetate.[13]—This preparation differs from cortisone acetate only by the presence of an extra double bond between carbon atoms 6 and 7.

It was given to a rheumatoid patient intramuscularly in doses up to 300 mg. daily and totaling 1.0 Gm. in six days (Jan. 6 to 11, 1950) in case 4. Sedimentation rates were 57 mm. on January 6, 59 mm. on January 11 and 58 mm. on Jan. 14, 1950. No antirheumatic activity was observed.

STEROIDS OTHER THAN CORTISONE: V. CHANGES AT THE CARBON 11 POSITION, IN THE SIDE CHAIN AND IN THE A AND B RINGS

Because of the location of the double bond, the two other preparations used in this study belong to the Δ^5-pregnene series, a different chemical group from cortisone (table 1).

Δ^5-Pregnenolone.—This substance is a chemical precursor of progesterone and desoxycorticosterone. The double bond is located between carbon atoms 5 and 6 in the B ring. It has a hydroxyl group at carbon 3 instead of a ketone group, and the oxygen is absent at carbon atoms 11, 17 and 21. If the body oxidizes the hydroxyl radical at carbon 3 to a ketone radical, the double bond between carbon atoms 5 and 6 would shift to between carbon atoms 4 and 5 as it is placed in cortisone but the oxygen atom would, by comparison, still be absent at positions 11, 17 and 21. Nevertheless, claims of antirheumatic activity for this steroid are in part based on its "close" chemical similarity to cortisone.

10. Thorn, G. W.; Bayles, T. B.; Massell, B. F.; Forsham, P. H.; Hill, S. R., Jr.; Smith, S., III, and Warren, J. E.: Studies on the Relation of Pituitary-Adrenal Function to Rheumatic Disease, New England J. Med. **241**: 529-537 (Oct. 6) 1949.

11. Spies, T. D., and Stone, R. E.: Pituitary Adrenocorticotropic Hormone (A. C. T. H.) as a Tool of Clinical and Laboratory Research, Lancet **1**: 11-14 (Jan. 7) 1950.

12. (a) A New Treatment for Rheumatoid Arthritis, editorial, Brit. M. J. **1**: 812-813 (May 7) 1949. (b) Copeman, W. S. C.: Personal communication to the authors.

13. This compound was prepared from cortisone acetate by Drs. Mattox and Kendall. Its physiologic properties will be reported elsewhere.

Use of this steroid either intramuscularly or orally in rheumatoid arthritis has recently been reported by several authors.[14] While "pain and spasm were greatly diminished . . ." and "striking relief" (in half the patients) was described, "reduction of sedimentation rates did not parallel clinical improvement" and results were admittedly less rapidly apparent than when cortisone is used.

No evidence of cortisone-like activity or significant antirheumatic effects from use of Δ^5-pregnenolone have been noted by Freyberg [7] or by Guest, Kammerer, Cecil and Berson.[15] Smith [16] concluded similarly that "pregnenolone is of relatively little value in the treatment of rheumatoid arthritis."

We have given daily doses of 100 to 300 mg. intramuscularly for a total of 2.6 Gm. in ten days (Aug. 22 to 31, 1949) to a woman, 45 years old (case 8), whose moderately severe rheumatoid arthritis had been present five years. She had previously experienced excellent antirheumatic effects from both pituitary adrenocorticotropic hormone and cortisone, the latter on two occasions. As may be observed in numerous therapeutic or nontherapeutic circumstances, a slight degree of subjective feeling of well-being occurred during the administration of this substance but there was no significant degree of objective improvement in the rheumatoid arthritis. The sedimentation rate increased from 115 mm. (August 22) to 126 mm. (September 2).

21-Acetoxypregnenolone.—This preparation, also known as artisone, differs from the previous one only by the addition of an acetylated hydroxyl (acetoxy) group at carbon 21.

Each of the 7 ambulatory rheumatoid patients given this substance by Seifter, Warter and Fitch [17] were "significantly" improved in two to eight days "by reduction in swelling, lessening of the pain and increased motion in the joints." No information regarding the sedimentation rates was given. It was suggested that this steroid affects favorably only a localized manifestation (permeability of the synovial membrane, "the end-organ") of a systemic disease. In a later report [18] it was noted that "in one patient who had only a fair response to artisone" there was "a significantly greater improvement when switched to cortisone." 21-Acetoxypregnenolone was not found to have antirheumatic activity by Freyberg.[7]

In our study 300 mg. of 21-acetoxypregnenolone has been given intramuscularly each day for twenty-two days to 2 rheumatoid patients (case 4, March 30 to April 20, 1950, and case 3, April 18 to May 9, 1950). Each had moderately severe rheumatoid arthritis which had previously responded well to cortisone. The total dose in each case was 6.6 Gm. No subjective or objective improvement in the rheumatoid arthritis could be detected; the sedimentation rate in case 4 was 52 mm. on March 30 and 44 mm. on April 20; in case 3, 70 mm. on April 18 and 105 mm. on May 5.

ADRENAL CORTEX EXTRACTS

As previously reported, an adrenal cortex extract (Kendall) was given in 1941 by Drs. Hench and Slocumb to 3 patients with rheumatoid arthritis without impressive results.[1] In the present study further trial of some extracts of the adrenal cortex has been made (table 2).

Kendall's Adrenal Cortex Extract (ACE).—This extract was given intravenously in divided doses of 100 cc. daily for four days (March 22 to 25, 1949) to a woman who had rheumatoid arthritis (case 9). This was the equivalent of 16 to 17 pounds (7.3 to 7.7 Kg.) of beef adrenals per day (1 cc. contains the extract of 75 Gm. of beef adrenals) but contained only 10 to 20 mg. of cortisone and 17-hydroxycorticosterone in the daily dose. There was a transient decrease of the sedimentation rate from 86 to 62 mm. in the four day period. However, no clinical effect was noted.

TABLE 2.—*Adrenal Cortex Extracts Used for Rheumatoid Arthritis*

Description	Method of Administration	Daily Dose and Duration of Administration	Total Dose	Approximate Daily Equivalent of Cortisone and/or 17-Hydroxycorticosterone (Compound F)	Antirheumatic Effect, Grade
Kendall's ACE	Intravenous	100 cc. 4 days	400 cc.	10-20 mg. cortisone and compound F	0
Lipoadrenal cortex, double strength	Intramuscular	10-20 cc. 14 days	210 cc.	20-40 mg. compound F (30-60 mg. cortisone)	0
Adrenal cortex extract in propylene glycol	Intramuscular	2.4-4.8 cc. 15-21 days	36.0-86.4 cc.	48-96 mg. compound F (72-144 mg. cortisone)	1—
Adrenal cortex extract capsules	Oral	10-20 capsules 33 days	635 capsules	50-100 mg. compound F (75-150 mg. cortisone)	3+

Lipoadrenal Cortex Extract (Double Strength).—This extract was given intramuscularly for fourteen days to a man, 47 years old, who had had rheumatoid arthritis and rheumatoid spondylitis for ten to eleven years (case 10). This is the only patient in this study who did not receive either cortisone or pituitary adrenocorticotropic hormone for comparative purposes. During his illness his height had decreased 3 inches (7.6 cm.). Dorsal kyphosis, lumbar flattening and generalized spinal tenderness and stiffness were present. One wrist, both knees and ankles and the metatarsal joints were slightly swollen and moderately tender. Roentgenograms revealed bilateral destructive sacroiliitis and slight ligamentous calcification. Sedimentation rates varied between 39 and 55 mm. (Aug. 4 to 23, 1949).

During the first seven days doses of 2.5 cc. were given four times daily, then 5.0 cc. four times daily for another seven days (Aug. 24 to Sept. 6, 1949). Each cubic centimeter of this extract contained 20 units as measured by glycogen deposition in the rat liver (1 unit is equivalent to the activity of 0.1 mg. of 17-hydroxycorticosterone, compound F) and is calculated to be the yield from approximately 400 Gm. of hog adrenals. The approximate calculated equivalent of 17-hydroxy-

14. (a) Davison, R.; Koets, P.; Snow, W. G., and Gabrielson, L. G.: Effects of Delta 5 Pregnenolone in Rheumatoid Arthritis, Arch. Int. Med. **85**: 365-388 (March) 1950. (b) Freeman, H.; Pincus, G.; Johnson, C. W.; Bachrach, S.; McCabe, G. E., and MacGilpin, H.: Therapeutic Efficacy of Δ^5-Pregnenolone in Rheumatoid Arthritis: Preliminary Observations, J. A. M. A. **142**: 1124-1128 (April 15) 1950.

15. Guest, C. M.; Kammerer, W. H.; Cecil, R. L., and Berson, S. A.: Epinephrine, Pregnenolone and Testosterone in the Treatment of Rheumatoid Arthritis, J. A. M. A. **143**: 338-344 (May 27) 1950.

16. Smith, R. T.: Testosterone, Pregnenolone and Irradiated Ergosterol in Treatment, Philadelphia Medicine **45**: 1201-1202 (April 8) 1950.

17. Seifter, J.; Warter, P. J., and Fitch, D. R.: Preliminary Observations on the Antiarthritic Effect of 21-Acetoxypregnenolone, Proc. Soc. Exper. Biol. & Med. **73**: 131-134 (Jan.) 1950.

18. Fitch, D. R.: Effect of Newer Steroids on Synovial Membrane Permeability and on Rheumatoid Arthritis, Philadelphia Medicine **45**: 1203-1204 (April 8) 1950.

corticosterone was 20 mg. per day during the first week and 40 mg. daily in the second. That of cortisone was 30 mg. daily the first week and 60 mg. daily the second week. There was no significant effect on subjective, objective or laboratory data. Indeed, without administration of acetylsalicylic acid or other treatment he had some increased stiffness; the sedimentation rate increased from 49 to 55 mm. and then fluctuated between 38 and 47 mm. No visible edema occurred, although he gained 5 pounds (2.3 Kg.) during the fourteen days of administration of this extract.

Adrenal Cortex Extract in Propylene Glycol.—The concentration of this extract was calculated to be about twenty times that of lipoadrenal cortex extract. Each cubic centimeter contained 200 units as measured by glycogen deposition in the rat liver and is calculated to be the yield from approximately 4,000 Gm. of hog adrenals. Daily divided doses were given intramuscularly to 2 patients as follows: 0.8 cc. twice daily for one day and three times daily for fourteen days (Aug. 29 to Sept. 12, 1949) in case 3 and 0.8 cc. three times daily for seven days and double this amount, 1.6 cc., three times daily for an additional fourteen days (Sept. 8 to 28, 1949) in case 4. Daily equivalent amounts of cortisone (calculated from the glycogenic

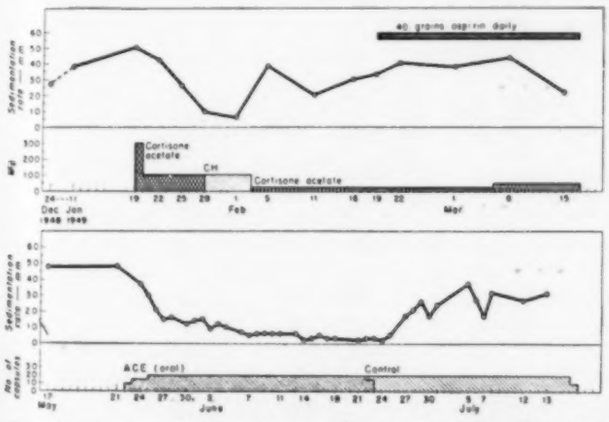


Fig. 4.—Curve of sedimentation rate in case 11 showing the result of oral administration of adrenal cortex extract (ACE) followed by a placebo capsule as a control. Comparison can be made with the use of cortisone acetate in both effective and inadequate doses and of cholesterol (CH).

activity) varied with the dosage used from 48 mg. (1.6 cc.) to 72 mg. (2.4 cc.) to 144 mg. (4.8 cc.).

The rheumatism of 1 patient (case 3) was not affected, although the sedimentation rate decreased temporarily from 75 mm. on August 29 to 41 mm. on September 8. The sedimentation rate of the other patient (case 4) was reduced to normal from 75 to 14 mm. in twenty-one days (as it was by cortisone), but the reduction of rheumatic symptoms and signs, though definite, was only about a third that which had previously resulted from cortisone. A gain of 13 pounds (5.9 Kg.) and moderate bilateral swelling of the ankles occurred but promptly subsided when administration of the extract was discontinued, as did the mild degree of symptomatic improvement.

Adrenal Cortex Extract Capsules.—These were specially prepared from 5,400 pounds of selected hog adrenals. The yield was sufficient for trial in doses used for thirty-three days (May 21 to June 22, 1949) on 1 man who had rheumatoid arthritis (case 11). Each capsule contained 50 units as measured by glycogen deposition in the rat liver. Ten to 20 capsules were given orally daily (usually 5 capsules four times daily). The maximal daily equivalent of cortisone was 150 mg. as calculated from the glycogenic activity.

With this preparation there was a high degree of antirheumatic activity, apparently equal to that produced by cortisone given intramuscularly, though somewhat slower in reaching its maximal development (approximately two weeks). The sedimentation rate decreased rapidly from 48 mm. (May 21) to normal (15 mm.) in six days (May 26). Symptoms and signs of rheumatoid arthritis quickly returned when, unknown to the patient, the extract was replaced by placebo capsules (fig. 4).

Although the availability of this type of extract is extremely limited, it is hoped that further experience with such extracts as well as with cortisone given orally to rheumatoid patients will soon be possible.

COMMENT

In any critically evaluated, comparative study of antirheumatic activity it must be demonstrated that effects observed are significant and are due to the preparation used rather than to other factors to which rheumatoid arthritis can be so susceptible. The ideal antirheumatic substance should consistently affect not varying local manifestations but the fundamental systemic alterations of the disease we call rheumatoid arthritis. Our opportunity to compare the effects of various steroids and adrenal cortex extracts on patients who also have received cortisone or pituitary adrenocorticotropic hormone or both was of invaluable help in this regard.

Comparison with Effects of Cortisone on Rheumatoid Arthritis.—The recognizable clinical effects of cortisone in rheumatoid arthritis have been grouped as follows: antirheumatic, antipyretic, nutritional, euphorogenic, "side effects" and withdrawal effects. Effects on sedimentation rate and other clinical laboratory data have also been recorded.[1]

Antirheumatic Effects.—Among the sixteen preparations investigated in this study, significant antirheumatic activity from the doses employed was possessed by only two—both much rarer than either cortisone or pituitary adrenocorticotropic hormone: 17-hydroxycorticosterone among the steroids and an especially prepared extract of the adrenal cortex for oral administration calculated to contain the physiologic equivalent of cortisone in about one and a half times the amount usually needed for intramuscular use in rheumatoid arthritis. In both instances when use of the preparation was discontinued, the improvement was lost more promptly than after withdrawal of cortisone or pituitary adrenocorticotropic hormone. A mild degree of antirheumatic effect was noted by 1 of 2 patients given adrenal cortex extract in propylene glycol, calculated to be about twenty times the strength of ordinary lipoadrenal cortex extract.

By contrast a distinct and usually pronounced antirheumatic effect has been observed in all patients with rheumatoid arthritis to whom we have given effective doses of cortisone.

Antipyretic Effects.—The body temperature when elevated usually decreased to normal when cortisone was administered. Prior to, and during, this study, patients were afebrile in six instances (including the trial of 17-hydroxycorticosterone), and daily temperature records were not made during nine trials on ambulatory outpatients. Previously existing elevation of body temperature to 99 to 100 F. was unaffected in

four trials, while in one instance temperature ranged from 100 to 102.6 F. With two preparations (adrenal cortex extract given orally and 6-dehydrocortisone acetate), elevations of temperature to 99 to 99.4 F. disappeared during administration of the substance, and recurred promptly thereafter in the case in which the extract of the adrenal cortex was given by mouth.

Nutritional Effects.—While the patient was being given 17-hydroxycorticosterone her appetite became "very good" but not ravenous. No gain in weight occurred, as the patient was the subject of metabolic balance study necessitating a fixed intake of food. During the oral administration of the adrenal cortex extract for thirty-three days 1 patient gained 3½ pounds (1.6 Kg.); he was "hungry all the time" but intentionally avoided further gain in weight.

Euphorogenic Effects.—Euphorogenic effects were not produced except during the one trial of adrenal cortex extract given by mouth. In this instance moderate euphoria, comparable to that also experienced by this patient when he was receiving cortisone, was exhibited. Slight subjective improvement or mild changes in general feeling of well-being occurred with some of the other preparations. As this often occurs with any type of therapy (including placebos) in rheumatoid arthritis, the observation is of limited significance as compared with the effects of cortisone.

Side Effects.—These were observed chiefly in the form of edema. While receiving adrenal cortex extract in propylene glycol, 1 patient gained 13 pounds (5.9 Kg.) in eighteen days. Dependent ankle edema was conspicuously present but subsided within twenty-four to forty-eight hours when an inert substance was substituted. Desoxycorticosterone acetate induced a gain of 6 pounds (2.7 Kg.) in seven days in 1 case. In neither instance could appetite account for these gains.

Mild facial rounding ("puffiness") occurred after nine days of 17-hydroxycorticosterone in 50 to 100 mg. daily doses in the case of a woman, 49 years old (case 1). Dull frontal headaches and "burning of the eyes" also were described by this patient. This same patient had noted a transient "dull buzzing in the ears" when receiving 11-dehydrocorticosterone. These symptoms could not be related with certainty to the hormones which were administered.

Withdrawal Effects.—Evidence of posthormonal weakness was not observed from the brief trials (though usually with relatively large doses) of these substances. For purposes of comparison with cortisone longer periods of administration probably would be needed, as this phenomenon was noted with cortisone usually only when its administration was continued for more than seven weeks.

Effects on Sedimentation Rates and Other Clinical Laboratory Data.—Decrease of the sedimentation rate to normal occurred after six days of oral administration of adrenal cortex extract (case 11) and after twenty-one days of administration of adrenal cortex extract in propylene glycol (case 4); the rate of the other patient (case 3) who received the latter extract partially decreased. The patient who received 17-hydroxycorticosterone for twelve days had a decrease of the sedimentation rate from 85 to 24 mm. With the other preparations investigated no change or fluctuating increases and decreases in the sedimentation rate were observed. Significant variations in other clinical laboratory data were not observed.

TABLE 3.—*Urinary Excretion of Corticosteroids and 17-Ketosteroids Following Administration of Certain Steroid Compounds to Patients with Rheumatoid Arthritis*

Case No.	Substance Given	No. of Days	Dose, Mg.	Urinary Corticosteroids, Mg. per Day		Urinary 17-Ketosteroids, Mg. per Day	
				Range	Average	Range	Average
1	None	3	....	0.81-0.92	0.88	3.6- 3.8	3.7
	17-Hydroxycorticosterone	12	50-100	1.10-2.40	1.56	2.0- 3.7	2.5
3	None	4	....	0.41-0.46	0.43	4.7- 9.2	6.9
	11-Desoxycortisone	5	200-300	0.44-0.70	0.58	5.8-10.3	8.0
4	None	3	....	0.42-0.94	0.66	1.5 2.3	1.9
	11-Desoxycortisone	7	200-300	2.35-6.15	3.78	3.1-12.9	7.8
2	None	4	....	0.42-1.03	0.74	1.3- 3.9	2.7
	Dihydrocortisone acetate	7	25-200	0.82-2.67	1.81	3.5- 9.9	5.6
4	None	3	....	0.42-0.94	0.66	1.5- 2.3	1.9
	Dihydrocortisone acetate	10	200-300	2.07-7.35	5.30	6.2-14.1	8.6
8	None	2	....	0.69-0.72	0.70	1.0- 1.3	1.2
	△5-Pregnenolone	10	100-300	0.49-0.68	0.56	0.0- 1.2	0.3
4	None	2	....	0.29-0.36	0.32	2.7- 2.8	2.8
	6-Dehydrocortisone acetate	6	50-300	0.49-1.09	0.81	2.4- 3.6	3.1
2	None	1	....	0.52	0.52	2.5	2.5
	17-Hydroxyprogesterone	9	50-100	0.40-1.17	0.74	4.0- 4.9	4.5
3	None	3	....	0.25-0.53	0.39	4.6- 6.5	5.3
	21-Desoxycortisone	5	200-300	0.40-0.49	0.44	6.3-12.3	9.3
3	None	3	....	0.25-0.53	0.39	4.6- 6.5	5.3
	Pregnenetriolone acetate	11	50-300	0.27-0.73	0.55	5.8-14.6	9.8
3	None	6	....	0.39-0.50	0.49	6.7-15.1	10.6
	Pregnenetriolone acetate	10	50	0.41-0.62	0.50	9.2-14.1	10.9

Effects on Urinary Excretion of 17-Ketosteroids and Corticosteroids.[19]—When cortisone is given in doses of 100 mg. daily for one to three weeks to rheumatoid patients having at least normal excretion of 17-ketosteroids, a decreased excretion (half or less than half the control values) occurs within a few days. This is followed by some increase, but excretion generally remains less than the precortisone level. Cortisone in

19. For determination of the 17-ketosteroids, urine was boiled ten minutes with one-tenth its volume of concentrated hydrochloric acid and then extracted with carbon tetrachloride. The neutral fraction was assayed for 17-ketosteroids by the method of Callow, Callow and Emmens[20] and the results were corrected by use of an equation to compensate for interfering chromogens.[21] The term "corticosteroids" designates that fraction of the extract of unheated urine which yields formaldehyde when treated with periodic acid.[22] This reaction is given by compounds containing a primary α-ketol ($-CO-CH_2OH$) or glycol ($-CHOH-CH_2OH$) group. A primary α-ketol group appears in the adrenal cortical hormones and the α-glycol group is present in pregnenetriolone and probably in some metabolites of the cortical hormones. Geraldine Nickell, Louise Reichrath, Elizabeth Lloyd and Marcia Pfau made these determinations.

20. Callow, N. H.; Callow, R. K., and Emmens, C. W.: Colorimetric Determination of Substances Containing the Grouping $-CH_2CO-$ in Urine Extracts as an Indication of Androgen Content, Biochem. J. **32**: 1313-1331 (Aug.) 1938.

21. Talbot, N. B.; Berman, R. A., and MacLachlan, E. A.: Elimination of Errors in the Colorimetric Assay of Neutral Urinary 17-Ketosteroids by Means of a Color Correction Equation, J. Biol. Chem. **143**: 211-218 (March) 1942.

22. Corcoran, A. C., and Page, I. H.: Methods for the Chemical Determination of Corticosteroids in Urine and Plasma, J. Lab. & Clin. Med. **33**: 1326-1333 (Oct.) 1948.

the same doses produces an initial increase (not exceeding 5 mg. per twenty-four hours) in excretion of corticosteroids lasting a few days; this is followed by lesser increases, and the excretion of corticosteroids gradually decreases to normal after administration of cortisone is discontinued.

The results obtained from studies of other steroids are set forth in table 3. Previous results have indicated that a 17-hydroxyl group is essential for metabolic removal of the side chain of pregnone derivatives with formation of 17-ketosteroids. In general, the present observations confirm the previous ones. Increased amounts of 17-ketosteroids were obtained with 11-desoxycortisone (Reichstein's substance S), dihydrocortisone acetate, 17-hydroxyprogesterone, 21-desoxycortisone and with pregnenetriolone acetate when given in the larger doses. Exceptions are 17-hydroxycorticosterone and 6-dehydrocortisone acetate. Failure of the former to yield an extra amount of 17-ketosteroids was unexpected. Another patient may well respond with an increased excretion. Individual variations are illustrated by the response of the 2 patients given 11-desoxycortisone. Although on the average the first patient responded with a small increase in the amount of 17-ketosteroids excreted, the difference is not significant. The average value from the second patient, however, increased to four times the average control value.

When there was an increase in the amount of excretion of 17-ketosteroids, the values increased gradually during the period of administration of the steroid being used. The maximal values given in table 3 indicate the magnitude of the increase.

It is of interest that no 17-ketosteroids were excreted by the patient given Δ^5-pregnenolone beginning with the third day and continuing through the first day after administration (eleventh day after beginning) of this substance was stopped. However, this substance had no effect on 17-ketosteroid excretion when given intramuscularly in doses of 300 mg. daily to another woman with rheumatoid arthritis.

Increases in the corticosteroid values were observed when 17-hydroxycorticosterone, 11-desoxycortisone (1 patient), dihydrocortisone acetate and 6-dehydrocortisone acetate were given. An unexpected result was the failure of the corticosteroids to increase when pregnenetriolone acetate was given. The small differences observed with the larger doses of this preparation are not significant. Apparently pregnenetriolone was not excreted in an unconjugated form so that it could be extracted, or else the side chain was modified so that formaldehyde was not produced by the assay procedure. An increase was not expected and did not occur with Δ^5-pregnenolone, 17-hydroxyprogesterone or 21-desoxycortisone.

COMPARISON WITH CORTISONE OF DURATION AND DOSAGE OF OTHER PREPARATIONS USED

In rheumatoid arthritis the response to effective doses of cortisone can usually be expected within a few days; often it begins within twenty-four hours.

With few brief exceptions, doses of steroids used in this study equalled and usually exceeded the known effective dose range of cortisone in rheumatoid arthritis. Eight of the twelve steroids were given intramuscularly in doses up to 300 mg. in twenty-four hours. Desoxycorticosterone acetate was given in daily doses of 5 mg.; the other three steroids were given in doses reaching at least 100 mg. daily. When the dosage range of 100 mg. was used, this was usually continued for one to two weeks. Three of the extracts of the adrenal cortex were given for fourteen to thirty-three days, and one was given for only four days. The concentrations of these extracts and the potency of antirheumatic activity varied.

It is evident that the possibility of some antirheumatic activity from larger doses or more extended trial of some of these substances has not been excluded. However, in this search for antirheumatic activity *equal to or exceeding* that of cortisone, these studies indicate that an adequate, fair initial test has been made with the duration of administration and dosage of the substances used.

SUMMARY

Twelve steroids other than cortisone and four adrenal cortex extracts have been administered to a select group of patients with rheumatoid arthritis to compare antirheumatic activity of these substances with that of cortisone. In the dosage schedules used, only 17-hydroxycorticosterone, adrenal cortex extract given orally and possibly the concentrated adrenal cortex extract in propylene glycol had any objectively demonstrable degree of antirheumatic activity against rheumatoid arthritis. Further study of these substances, as well as cortisone given orally, and larger doses of 11-dehydrocorticosterone would be desirable.

An increased excretion of 17-ketosteroids was observed during administration of 11-desoxycortisone, 17-hydroxyprogesterone, 21-desoxycortisone and pregnenetriolone acetate but not during administration of 17-hydroxycorticosterone and 6-dehydrocortisone or any of the steroids which did not have a hydroxyl group at carbon 17. Increased amounts of cotricosteroids were excreted when those steroids with an α-ketol side chain were administered but not when pregnenetriolone acetate was given.

Based on the criteria and dosage schedules used in this study of rheumatoid arthritis, it would appear that antirheumatic properties of the steroid structure are dependent on the presence of a ketone group at carbon 3, either a ketone or a hydroxyl group at carbon 11, a ketone group at carbon 20, hydroxyl groups at carbon 17 and 21 and a double bond between carbon atoms 4 and 5. While proof of this supposition must await additional experience, the presently available chemical and critical clinical evidence indicates that these requirements are met only in cortisone, 17-hydroxycorticosterone (compound F) and adrenal cortex extracts containing significant amounts of these two steroids.

Patience, Delicacy and Secrecy.—Patience and delicacy should characterize the physician. Confidences concerning individual or domestic life entrusted by patients to a physician and defects in the disposition or character of patients observed during medical attendance should never be revealed unless their revelation is required by the laws of the state. Sometimes, however, a physician must determine whether his duty to society requires him to employ knowledge, obtained through confidences entrusted to him as a physician, to protect a healthy person against a communicable disease to which he is about to be exposed. In such instance, the physician should act as he would desire another to act toward one of his own family in like circumstances. Before he determines his course, the physician should know the civil law of his commonwealth concerning privileged communications.

From the PRINCIPLES OF MEDICAL ETHICS of the American Medical Association.

Clinical Notes, Suggestions and New Instruments

HAIRY TONGUE

AARON M. LEFKOVITS, M.D.
and
BERNARD LAPIDUS, M.D.
Memphis, Tenn.

Black hairy tongue is a vivid phrase applied to an extraordinary overgrowth of the filiform papillae of the tongue, imparting to that organ a superficial semblance of hairiness. The first known adequate description of this condition is that of Rayer,[1] who in 1835 observed it in an adult male. Since then this peculiar condition of the tongue has been studied by numerous writers, and several excellent descriptions of it exist in the literature. One of the largest series of cases reported is that of Swinburne,[2] who observed 15 instances of this condition.

Recently we had the opportunity of observing and treating a striking example of this disease. Because the condition is not seen frequently, we deem it worth while to report the following case.

REPORT OF CASE

A white man aged 70 was admitted for the first time to Kennedy Hospital on Oct. 23, 1947. Subsequently, he had

Fig. 1.—Gross appearance of the tongue.

three additional admissions to this hospital for the treatment of degenerative joint disease, generalized arteriosclerosis, benign prostatic hypertrophy, pulmonary emphysema and bronchopneumonia. Transurethral resection was performed on Aug. 26, 1949. However, after he returned to his home on Sept. 1, 1949 he continued to have urgency, frequency and difficulty in starting micturition; he continued to complain of backache and pains in the hip joints. During the three months prior to the last admission to the hospital, on Jan. 20, 1950, he lost 30 pounds (13.6 Kg.) and became severely debilitated. He smoked two to three packages of cigarets daily. While he was at

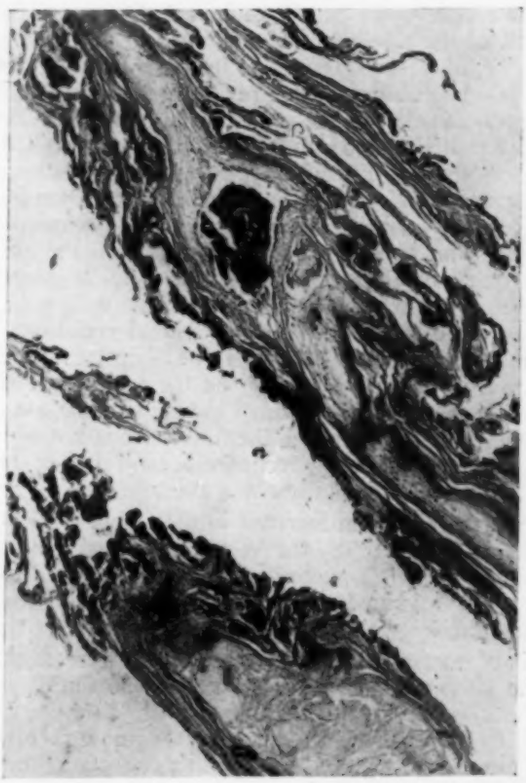


Fig. 2.—Microscopic section of papillae (low magnification).

home his physician gave him dihydromorphinone hydrochloride several times daily, intravenous infusions of procaine hydrochloride on four different occasions and other analgesic drugs in an attempt to control the patient's pain. Three weeks prior to admission the patient's wife noted a hairy growth on his tongue. On his admission to the hospital on January 20 there was seen over the posterior half of the patient's tongue (fig. 1), and covering the middle portion, a luxuriant growth consisting of individual filaments closely packed together; each filament was approximately 13 mm. long and 0.4 mm. thick; the distal half of each filament was dark brown to yellowish brown, while the proximal half was yellowish gray to grayish white. The filaments arose from the surface of the tongue and could easily be extracted with tweezers. The mucous membrane over the soft palate was injected and red, and there were several whitish gray, irregular patches of exudate which on removal left a bleeding surface. The patient wore complete upper and lower dentures. In addition, he presented evidences of degenerative joint disease, generalized arteriosclerosis, pulmonary emphysema, moderate degree of emaciation and pronounced debility.

Direct smear and culture of the material obtained from the throat showed alpha streptococci. Material obtained from the mouth, the tongue and the filamentous growth was inoculated into Sabouraud's medium with and without antibiotics,[3] into Thompson's medium and into brain-heart infusion and blood agar. Two sets of these inoculated mediums were prepared; one set was kept at room temperature, while the second was incubated at 37 C. The material inoculated into brain-heart

From the Medical Service, Veterans Administration Teaching Group, Kennedy Hospital.

Reviewed in the Veterans Administration and published with the approval of the Chief Medical Director. The statements and conclusions published by the authors are the result of their own study and do not necessarily reflect the opinion or policy of the Veterans Administration.

1. Rayer, cited by Heidingsfeld, M. L.: Hairy or Black Tongue, J. A. M. A. 55:2117 (Dec. 17) 1910.

2. Swinburne, G.: Hairy Tongue, J. Laryng. & Otol. 54:386 (July) 1939.

3. The antibiotics used were penicillin 20 units and streptomycin 40 units per cc. of medium.

infusion and blood agar medium yielded alpha streptococci and Staphylococcus aureus, while that inoculated into Sabouraud's and Thompson's mediums yielded a nonencapsulated budding yeast which did not form mycelium. There were no differences in the organisms recovered from the mediums kept at room temperature and those incubated at 37 C.

The patient discontinued smoking; hydrogen peroxide solution was applied locally to the growth, and careful attention was paid to his oral hygiene. The color of the growth changed to light yellow, but there was no diminution in the size of the growth or the length and thickness of the filaments. It was finally removed by clipping off the filaments with scissors, leaving a whitish gray base on the surface of the tongue.

Histologic examination of the removed filaments showed the central portion to consist of pale polygonal cells with pale bluish vesicular nuclei; the cytoplasm was clear; in many places only the bare outlines of these cells could be made out. This central core was surrounded by compressed or flattened concentric layers of varying thickness made up of fusiform cells possessing dark blue nuclei with dense chromatin; the cytoplasm of these cells was deeply eosinophilic and appeared to be somewhat granular. Numerous cocci arranged in pairs, or more often in groups, made up the peripheral layer (fig. 2).

COMMENT

Black hairy tongue is most commonly observed in debilitated elderly men in association with infections in the oropharynx, larynx and accessory nasal sinuses or with some type of neoplastic growth involving these structures. Thus, of the 15 cases reported by Swinburne,[2] 5 patients had various forms of nonspecific infections involving the tonsils, antral cavity or sinuses; 1 patient had delayed healing of the tonsillar fossae following tonsillectomy; 1 patient had tuberculous ulceration of the oropharynx and larynx, and 5 patients had carcinomatous growths involving the structures about the oropharynx and mouth either individually or in combination.

Recently, several writers[4] reported the development of black hairy tongue in association with the administration of penicillin either in lozenges or by inhalation. These lesions have been described as a "nap of wet heavy velvet" or "dark velvety tufts." Although this condition is also the result of hypertrophy of the filiform papillae the overgrowth is far less pronounced and is evanescent in nature; it disappears after discontinuation of penicillin therapy or after application of mild antiseptic solutions.

There is considerable discussion in the literature regarding the etiologic basis of this condition. Some writers[6] believe that it is due to infection of the filiform papillae of the tongue with pigment producing fungi, yeast or bacteria. Other observers[6] are of the opinion that the variable organisms found in the growth represent an accidental rather than a causal relationship. Any working explanation of the mode of formation of this growth must remain hypothetic to a great extent, since no one has been able to reproduce it experimentally either in animals or in human beings. However, the frequent association of inflammatory changes with the development of this condition suggests that infection with any one of a number of organisms, bacterial or otherwise, is probably responsible for the remarkable and peculiar overgrowth of the filiform papillae. In this connection the observations of Kennedy and Howles[5a] are of interest. These writers reported 3 cases of black hairy tongue. In two of these the condition developed after the patients smoked cigarets which had been laid on wood covered with a black hairy growth. That on the tongue was similar in appearance to that which was present on the wood presented for examination by one of their patients. Candida (Monilia) albicans was cultured from the growth on the tongues of the 2 patients and on the wood. On Sabouraud's medium this organism produced a growth grossly resembling that on the patients' tongues and on the wood. In the case reported herein there was an acute inflammation of the oropharynx; alpha streptococci and Staph. aureus were cultured from the lesions both on the palate and on the tongue. Histologic examination revealed large groups of cocci at the periphery of all papillae. It is reasonable to suppose that in certain persons invasion of the filiform papillae by bacteria, yeast or fungi occur because of infection or debility. This brings about a change in the tissue reaction of the papillae, as a result of which the superficial layers of the epithelium do not desquamate as they do normally; instead, these layers remain adherent to the underlying cells. The retention of successive layers of hornified epithelium results in a decided overgrowth and lengthening of the papillae.

The color of the growth appears to depend on the chromogenic properties of the particular organism responsible for the infection. Local irritating factors such as poor oral hygiene and excessive smoking probably act as contributing causes. The condition is benign; in some instances the elongated papillae may reach the palate and cause gagging or a tickling sensation. Treatment consists of improving the oral hygiene, applying a mild bactericidal solution or, as in our case, clipping off the hypertrophied papillae.

4. Wolfson, S. A.: Black Hairy Tongue Associated with Penicillin, J. A. M. A. **140**: 1206 (Aug. 13) 1949. Ayre, W. B.; Favreau, R., and Ayer, J. E.: Black Hairy Tongue Following Use of Penicillin, Correspondence, ibid. **141**: 548 (Oct. 22) 1949.

5. (a) Kennedy, C. B., and Howles, J. K.: Black Hairy Tongue, Arch. Dermat. & Syph. **42**: 566 (Oct.) 1940. (b) Weidman, F. D.: Affinities Between Black Tongue and Trichomycosis, ibid. **18**: 647 (Nov.) 1928. Alvarez, R. S.: A Red Torula as the Cause of a Tongue Abnormality, J. A. M. A. **87**: 1358 (Oct. 23) 1926.

6. Rayer, cited by Heidingsfeld.[1] Swinburne.[2]

AIR EMBOLISM IN BLOOD DONORS

NORMAN ENDE, M.D.
and
JOSEPH ZISKIND, M.D.
New Orleans

The purpose of this paper is to point out the potential danger of an air embolus to the donor when a vacuum type bottle is used for blood collection purposes and, further, to present two simple methods by which this hazard may be avoided.

Examination of the literature discloses several reported instances of fatal and nonfatal air embolisms which have occurred during the collection of blood. Some of these instances were in cases in which positive pressure was produced in the collecting bottle by means of a faulty pump,[1] a reverse syringe,[2] blocked escape vents [3] or the like. In most of the cases cited a positive pressure was created in the collecting bottle, and on the release of the tourniquet varying quantities of air were injected into the vein of the donor. Fortunately the quantity of air necessary to produce death in man is usually considerable, frequently estimated to be over 100 cc. Smaller quantities have proved fatal,[4] however, and the injection of air cannot be considered as good technic even when the results prove nonfatal. Furthermore, it is distressing to both the donor and technician.

A typical example of a nonfatal air embolus recently occurred in our experience. A vacuum donor set (with a capacity of about 730 cc.) was connected in the usual fashion, and blood flowed freely into the bottle for a few minutes. The bottle was held approximately 30 cm. below the level of the patient and in an upright position. After approximately 50 cc. of blood had passed into the bottle, the flow diminished and gradually ceased. Meanwhile, the donor continued to open and close his fist, and unsuccessful attempts were made to increase the flow of blood. Under the impression that the tourniquet might have been applied too tightly, we made an attempt to loosen it, with the result that it slipped and there followed an immediate flow of air

From the Department of Surgery and the Clinical Laboratory, Veterans Administration Hospital; Department of Pathology, Tulane University School of Medicine, New Orleans.

Sponsored by the Veterans Administration and published with the approval of the Chief Medical Director. The statements and conclusions published by the authors are a result of their own study and do not necessarily reflect the opinion or policy of the Veterans Administration.

1. Fatal Case of Air Embolism Due to a Rotary Pump Reversing Its Action, editorial, Brit. M. J. **2**: 311, 1941.

2. Browne, G. F.: Intravenous Injection of Air Fatal to Blood Donor, Anesthesiology **4**: 202, 1943.

3. McLean, J. A.: Note on the Possibility of an Air Embolism When Blood Is Taken from a Donor with a "Soluvac" Transfusion Bottle, M. J. Australia **1**: 162, 1943.

4. Simpson, K.: Air Accidents During Transfusions, Lancet **1**: 647, 1942.

bubbles in the reverse direction. The needle was quickly withdrawn when the movement of air was noticed, and the donor suffered no deleterious effects. Evidently this particular set had lost its vacuum. The venous pressure distal to the tourniquet had built up and had become greater than the normal venous pressure, producing pressure in the bottle which forced air into the vein on release of the tourniquet.

Meneely and Wells [5] demonstrated the influence of the temperature of the blood on the trapped air in such vacuum sets. This effect will, of course, vary with the temperature of the trapped air and the amount of blood that has entered the bottle. McLean [3] explained how in the "Soluvac" system, in which the blood flows into the bottle by gravity and the air is displaced and escapes through another opening in the cap, the mechanism for an air embolus may occur. If the escape vent becomes obstructed, the venous pressure distad to the tourniquet was described as being transmitted to the receiving bottle. No values have been given, however, as to how great a pressure could be delivered to a donor set nor as to how many potential cubic centimeters of air might be given to a donor.

We have conducted a series of experiments to demonstrate the amount of positive pressure that can be built up in a bottle that has lost its vacuum and the number of cubic centimeters of air which could theoretically be given to the donor in this manner. In our experiments the vacuum was neutralized in the bottle and the donor set was connected in the usual fashion to the donor's vein. Simulating the exact technic for drawing blood as used in the case herein described, with the top of the cap of the donor bottle approximately 25 cm. below the level of the antecubital fossa of the patient, we were able to produce in one case a pressure of 1,185 mm. of water in the recipient bottle. When the air under pressure in the bottle was measured against a pressure of 120 mm. of water

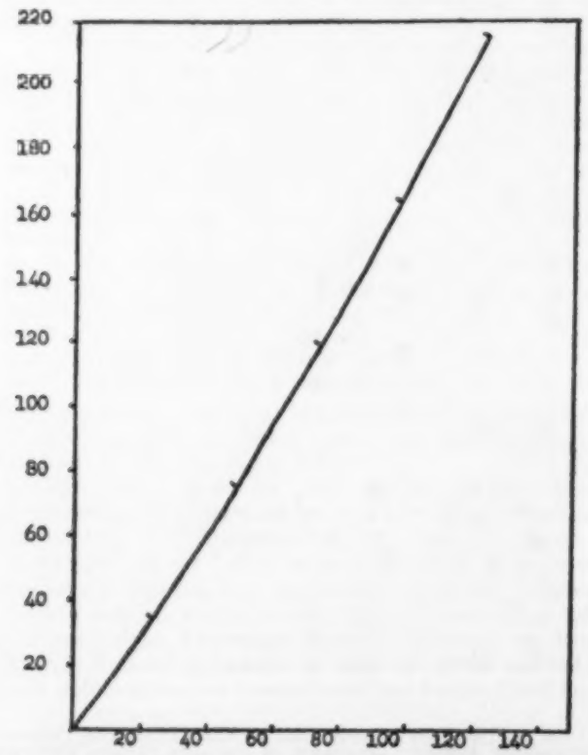


Fig. 1.—Graph calculated according to Boyle's law, showing the increasing potential air embolus varying with the increasing pressure in a container having a capacity of 730 cc. The horizontal row of figures on the bottom represents the volume of air in cubic centimeters. The vertical row of figures indicates the pressure in centimeters of water.

(this donor's normal venous pressure), 73 cm. of air was available for possible embolism. If the 8 to 10 cc. of blood which may be in the tubing connecting the donor's vein to the bottle is then subtracted, the remainder would indicate that the donor still could have received an air embolus of over 60 cc. of air. The tourniquet used in these experiments was applied without knowledge of the significance of its tightness, as will be further explained.

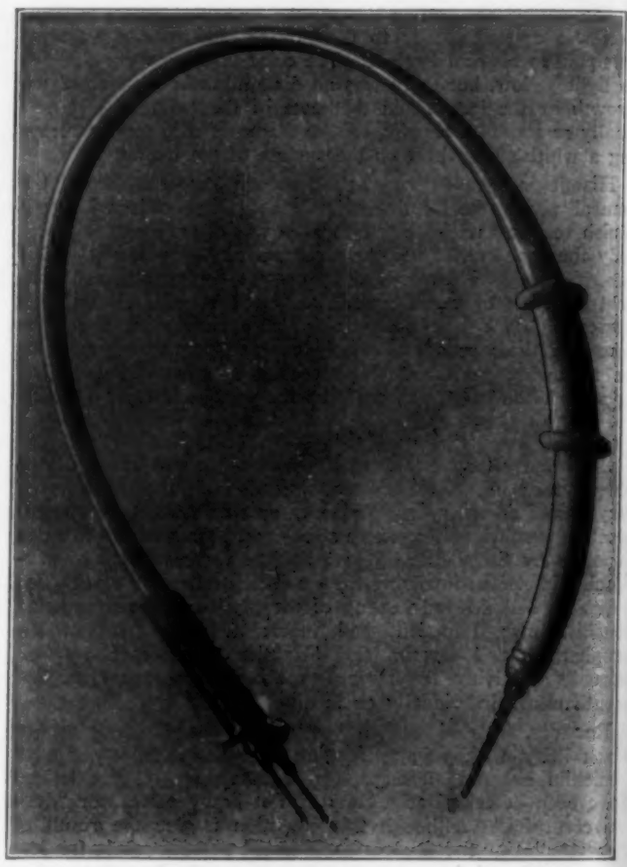


Fig. 2.—Tubing used in drawing blood from the donor with a slight modification added, consisting of a thin rubber diaphragm over a hole in the tubing.

The factors that determine the height of the pressure reached in the bottle appears to depend almost entirely on (1) the pressure of the tourniquet and (2) the distance the donor bottle rests below the level of the donor. Pressure distad to the tourniquet varies directly with the pressure of the tourniquet. To make this clearer an example may be cited. In a person with a blood pressure of 132 systolic and 68 diastolic we found a pressure of 82 cm. of water (60.5 mm. of mercury) produced distad to a tourniquet which had been applied at a pressure of 81.3 cm. of water (60 mm. of mercury). When the tourniquet had a pressure of 135.5 cm. of water (100 mm. of mercury) the venous pressure was 129 cm. of water (95.2 mm. of mercury). With these factors taken into consideration it can be seen that a tourniquet tied tightly on the arm of a donor with an elevated blood pressure could produce great pressures in the recipient bottle and, when the donor set is 30 to 40 cm. below the level of the vein, this will be an additional factor in increasing the pressure. It can thus be noted that in a case where the donor with a systolic pressure of over 150 mm. of mercury, a recipient bottle of 730 cc. capacity, and the bottle held 30 cm. below the level of the vein, a pressure around 200 cm. of water (147.6 mm. of mercury) could be produced. Pressures this high would deliver an embolus over 100 cc. of air minus the venous pressure of the donor and the blood in the tube connecting the vein to the bottle (fig. 1).

The total capacity of the recipient bottle also influences the size of the air embolus. Similar pressures in different sized containers will deliver quantities of air varying directly with the size of the container.

5. Meneely, G. R., and Wells, E. B.: Serious Air Embolism During Blood Donation, J. A. M. A. 132: 141 (Sept.) 1946.

It appears that only two conditions are needed to set the stage for an air embolus to the blood donor. First, there must be a loss of vacuum in the bottle; second, the tourniquet must be released with the set still connected to the donor's vein. In such circumstances one might wonder why more accidents have not been recorded. An explanation of this may be that many of them have been nonfatal and that the first vacuum set was not marketed commercially until around 1939.[6] An additional point may exist in that this method of drawing blood is not at present in universal use.

Loss of vacuum may be detected by the simple and well known method of shaking the bottle; if the vacuum is present the fluid will not have the splashing sound similar to that heard when fluid in a nonvacuum bottle is shaken. In the bottle with a loss of its negative pressure the sound elicited is loud and clear, while in the vacuum bottle the sounds are indistinct, high pitched and difficult to elicit.

By means of a slight modification to the usual tubing used in drawing blood, we have been able to demonstrate whether or not the vacuum is still present. A thin rubber diaphragm placed over a window in the tube acts as an indicator (fig. 2), remaining depressed while the vacuum is present (fig. 3 *A*) and assuming a normal position (fig. 3 *B*) when the vacuum is lost.

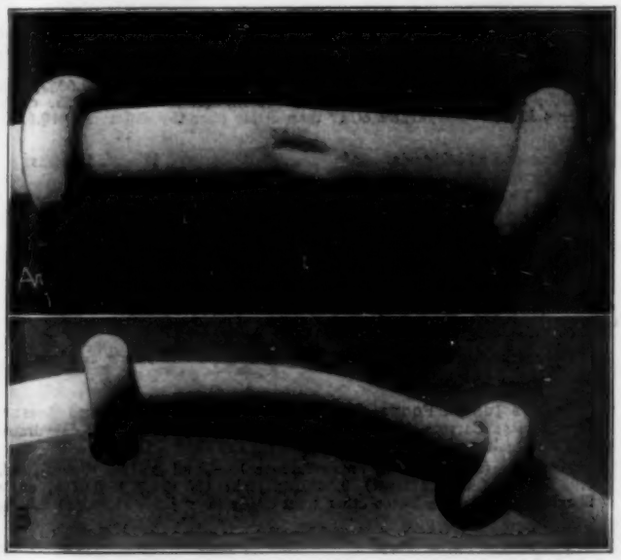


Fig. 3.—*A*, diaphragm depressed when vacuum is present. *B*, diaphragm in neutral position when vacuum is lost.

It has been recommended that the collecting flask be inverted at the time the blood is being collected in order to prevent an air embolus. Unfortunately, we have found that most technicians invert the collecting bottle in order to insure better mixing of the citrate, but not for the purpose of averting the danger from an air embolus. If the flow of blood slows down, in order that they may judge the effect of any adjustment they make, they immediately right the bottle so as to visualize the stream of flow into the flask. This maneuver immediately removes the safety mechanism prevented by an inverted collecting bottle.

SUMMARY

Only two conditions are essential for an occurrence of an air embolus during use of a vacuum type bottle for the blood donor set. First, there must be a loss of vacuum in the bottle; second, there must be a release of the tourniquet while the apparatus is still connected to the blood donor's vein. Two simple methods are presented here for removal of this hazard: First, by shaking the bottle there is easily noticed a difference in sounds produced if the vacuum is present or absent. Second, by use of the modified rubber connecting tube described here, the presence or lack of vacuum may be immediately detected.

6. Don Baxter, Inc.: Personal communication to the authors. Cutter Laboratories: Personal communication to the authors.

Council on Pharmacy and Chemistry

NEW AND NONOFFICIAL REMEDIES

The following additional articles have been accepted as conforming to the rules of the Council on Pharmacy and Chemistry of the American Medical Association for admission to New and Nonofficial Remedies. A copy of the rules on which the Council bases its action will be sent on application.

R. T. STORMONT, M.D., *Secretary.*

ANTI-HEMOPHILUS INFLUENZAE TYPE B SERUM (RABBIT).—A sterile, refined and concentrated antiserum obtained by immunizing rabbits with *Hemophilus influenzae* type B; potency is determined by comparison with a standard serum supplied by the National Institutes of Health.

Actions and Uses.—Anti-hemophilus influenzae type B serum is used for treatment of influenzal meningitis due to *H. influenzae* type B organisms.

Dosage.—After identification of the causative *H. influenzae*, type B, the dosage of serum is determined by estimating the level of spinal fluid dextrose in milligrams per 100 cc., since the reciprocal of this value indicates the severity of the infection:

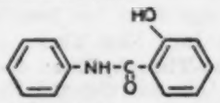
Spinal Fluid Dextrose	Dosage of Serum
Under 15 mg. per 100 cc.	100,000 units
15 to 25 mg. per 100 cc.	75,000 units
25 to 40 mg. per 100 cc.	50,000 units
Over 40 mg per 100 cc.	25,000 units

The dose is diluted in isotonic sodium chloride solution or Ringer's solution, 10 cc. of solution per kilogram of body weight and administered intravenously with the speed adjusted so that administration is completed within 2 hours. Adjunctive treatment with aureomycin hydrochloride, streptomycin salts or sulfadiazine sodium is recommended.

E. R. SQUIBB AND SONS, NEW YORK 22, N. Y.

Anti-Hemophilus Influenzae Type B Serum (Rabbit): 25 cc. vials. Each vial contains 25 mg. agglutinin antibody nitrogen equivalent to not less than 25,000 provisional units. Preserved with thimerosal 1:10,000 and 0.2 per cent of phenol.

SALICYLANILIDE-N.F.—Ansadol (RORER).—$C_{13}H_{11}NO_2$.—M.W. 213.09.—The structural formula of salicylanilide may be represented as follows:



For description and standards see the National Formulary under Salicylanilide.

Actions and Uses.—Salicylanilide is an anti-fungal agent useful externally in the treatment of Tinea capitis due to *M. audouini*. Against that organism, in vitro, salicylanilide has approximately eight times the fungistatic power of undecylenic acid, but it is somewhat irritant to the skin in concentrations above 5 per cent. Because of its potential irritant effects on the skin, its use should be restricted to ringworm of the scalp.

Dosage.—Salicylanilide is applied topically in a concentration from 4.5 to 5.0 per cent, usually in the form of an ointment, either alone or in conjunction with less irritant fungistatic agents. The hair should be clipped from the affected and adjacent areas of the scalp prior to treatment and every two weeks thereafter during treatment. The clippings should be burned and a shampoo given after each clipping. Suitable preparations of the agent should be rubbed into the affected regions once or twice daily six days each week. About fifty single daily applications (eight weeks) are usually required to completely eradicate infection.

Tests and Standards.—

SALICYLANILIDE OINTMENT:

Identity Tests: The ointment responds to the identity tests as described in the monograph for salicylanilide.

Assay: Accurately weigh about 1.5 Gm. of the ointment into a 250 ml. iodine flask; add 2 ml. of chloroform and rotate to accomplish solution, warming if necessary. Cool and analyze as described in the monograph for Salicylanilide beginning with, "Add 25 ml. of 0.1 *N* potassium bromide-bromate with agitation . . ." The amount of salicylanilide present is not less than 95 nor more than 105 per cent of the labeled amount.

WILLIAM H. RORER, INC., PHILADELPHIA 6

Ointment Ansadol 4.5%: 113.4 Gm. and 453.6 Gm. jars: An ointment containing 45 mg. of salicylanilide in each gram.

ESTROGENIC SUBSTANCES (WATER SOLUBLE) (See New and Nonofficial Remedies 1950, page 327).

The following dosage form has been accepted:

E. R. SQUIBB AND SONS, NEW YORK

Tablets Amnestrogen: 0.3 mg., 0.625 mg., 1.25 mg., and 2.5 mg.

ETHINYL ESTRADIOL (See New and Nonofficial Remedies 1950, page 335).

The following dosage form has been accepted:

BIORGANIC LABORATORIES, BROOKLYN

Crystalline Ethinyl Estradiol: Bulk. For manufacturing use only.

HEPARIN SODIUM (See New and Nonofficial Remedies 1950, page 301).

The following dosage forms have been accepted:

THE UPJOHN COMPANY, KALAMAZOO, MICH.

Depo-Solution Heparin Sodium: 1 cc. cartridges: A solution containing 200 mg. of heparin sodium in each cc. Preserved with thimerosal 1:10,000.

Depo-Solution Heparin Sodium with Vasoconstrictors: 1 cc. cartridges: A solution containing 200 mg. of heparin sodium, 1 mg. of epinephrine hydrochloride, and 10 mg. of ephedrine hydrochloride in each cc. Preserved with thimerosal 1:10,000.

INFLUENZA VIRUS VACCINE, TYPES A AND B (See New and Nonofficial Remedies 1950, page 429).

The following dosage form has been accepted:

SHARP AND DOHME, GLENOLDEN, PA.

Influenza Virus Vaccine, Types A and B, Protamine Concentrated and Refined: 10 cc. vials. Preserved with thimerosal 1:10,000.

MANNITOL HEXANITRATE (See New and Nonofficial Remedies 1950, page 237).

The following dosage form has been accepted:

PHYSICIANS' DRUG AND SUPPLY COMPANY, PHILADELPHIA

Tablets Mannitol Hexanitrate: 30 mg.

MERSALYL AND THEOPHYLLINE (See New and Nonofficial Remedies 1950, page 275).

The following dosage form has been accepted:

WINTHROP-STEARNS, INC., NEW YORK

Solution Salyrgan-Theophylline: 1 cc. Ampins: A solution containing 0.1 Gm. salyrgan and 50 mg. theophylline in each cc.

METHYLTESTOSTERONE (See New and Nonofficial Remedies 1950, page 359).

The following dosage form has been accepted:

SMITH-DORSEY COMPANY, INC., LINCOLN, NEB.

Tablets Methyltestosterone: 10 mg.

NITROFURAZONE (See New and Nonofficial Remedies 1950, page 81).

The following dosage form has been accepted:

EATON LABORATORIES INC., NORWICH, N. Y.

Ear Solution Furacin: 30 cc. dropper bottles: An anhydrous solution containing 0.2 per cent furacin in polyethylene glycol 300.

TYPHOID VACCINE (See New and Nonofficial Remedies 1950, page 451).

The following dosage form has been accepted:

PARKE, DAVIS AND COMPANY, DETROIT

Typhoid Vaccine: 1.5 cc., 3 cc. and 15 cc. vials: 1,000 million killed typhoid bacilli in each cc.

VITAMIN B_{12} U. S. P. (See New and Nonofficial Remedies 1950, page 492).

The following dosage form has been accepted:

ABBOTT LABORATORIES, NORTH CHICAGO, ILL.

Solution Bevidox Crystalline: 1 cc. ampuls: An isotonic solution containing 15 micrograms of vitamin B_{12} in each cc.

Council on Foods and Nutrition

ACCEPTED FOODS

The following products have been accepted as conforming to the rules of the Council.

JAMES R. WILSON, M.D., *Secretary.*

Clapp's Baby Food Division, American Home Foods, Inc., Rochester, N. Y.

CLAPP'S JUNIOR FOODS—CHOCOLATE FLAVORED PUDDING. Ingredients; Sugar, powdered whole milk, cake flour, frozen whole eggs, cocoa, salt and vanilla.

Analysis (submitted by manufacturer).—Total solids 22.73%, ash 0.89%, fat (ether extract) 0.61%, protein (N × 6.25) 3.01%, crude fiber 5.22%, carbohydrates other than crude fiber (by difference) 13.00%.

Vitamins and Minerals	Mg. per Hundred Grams
Vitamin A	0.07
Thiamine	0.009
Riboflavin	0.239
Ascorbic acid	1.52
Niacin	0.22
Calcium	92.80
Phosphorus	81.50
Iron	0.36
Copper	0.16

Calories.—0.70 per gram; 19.74 per ounce.

Use.—For use in the feeding of older infants and young children.

CLAPP'S JUNIOR FOODS—PINEAPPLE PUDDING. Ingredients: Crushed pineapple, sugar, cake flour, powdered whole milk, frozen whole eggs, salt and vanilla.

Analysis (submitted by manufacturer).—Total solids 20.60%, ash 0.64%, fat (ether extract) 1.47%, protein (N × 6.25) 3.49%, crude fiber 4.33%, carbohydrates other than crude fiber (by difference) 10.67%.

Vitamins and Minerals	Mg. per Hundred Grams
Vitamin A	0.09
Thiamine	0.024
Riboflavin	0.239
Ascorbic acid	1.25
Niacin	0.15
Calcium	54.00
Phosphorus	53.10
Iron	0.12
Copper	0.25

Calories.—0.70 per gram; 19.85 per ounce.

Use.—For use in the feeding of older infants and young children.

CLAPP'S JUNIOR FOODS—VEGETABLES WITH BEEF, RICE AND BARLEY. Ingredients: Carrots, beef, celery, rice, tomato paste, barley, dehydrated potatoes, salt and dehydrated onions.

Analysis (submitted by manufacturer).—Total solids 13.20%, ash 0.92%, fat (ether extract) 0.88%, protein (N × 6.25) 3.01%, crude fiber 0.36%, carbohydrates other than crude fiber (by difference) 8.03%.

Vitamins and Minerals	Mg. per Hundred Grams
Vitamin A	2.62
Thiamine	0.018
Riboflavin	0.048
Ascorbic acid	1.70
Niacin	0.72
Calcium	15.80
Phosphorus	34.80
Iron	0.65
Copper	0.10

Calories.—0.52 per gram; 14.77 per ounce.

Use.—For use in the feeding of older infants and young children.

Kretschmer Corporation, Carrollton, Mich.

KRETSCHMER'S WHEAT GERM consists of wheat germ (removed in the processing of flour) which has been subjected to moderate heat for improvement of flavor.

Analysis (submitted by manufacturer).—Moisture 3.6%, ash 5%, fat 12.4%, protein (N × 6.38) 34%, crude fiber 2%, carbohydrates 43%.

Vitamins and Minerals	Mg. per Hundred Grams
Thiamine	1.59
Riboflavin	0.44
Niacin	4.94
Pantothenic acid	1.5
Folic acid	0.5
Biotin	0.0125
Pyridoxine	1.3
Choline	425
Inositol	750
Phosphorus	970
Iron	8.8

Calories.—4.4 per gram; 125 per ounce.

Use.—A food supplement providing the nutrients of wheat germ as indicated above. May be eaten alone as cereal or in combination with other foods.

Council on Physical Medicine and Rehabilitation

REPORT OF THE COUNCIL

The Council on Physical Medicine and Rehabilitation has authorized publication of the following reports.

HOWARD A. CARTER, *Secretary.*

SANBORN VISO-CARDIETTE, MODEL 51, ACCEPTED

Manufacturer: Sanborn Company, 39 Osborn Street, Cambridge 39, Mass.

The Sanborn Viso-Cardiette, Model 51, is a direct-writing portable electrocardiograph in which an electrically heated stylus traces on heat-sensitive plastic-coated paper. The instrument is housed in a case that measures 32 by 22 by 41 cm. (12¾ by 8½ by 16 inches) and weighs 15 Kg. (33½ pounds). Accessories include power cord, patient cable, ground wire, 2 tubes of electrode jelly, stylus arm, 5 electrodes, electrode handle, 5 straps, instruction book, instruction card, 3 mounting folders, 8 mounting cards, cellophane envelope, manila envelope, inserting plate, roll of recording paper, screw driver and adjusting tool. The weight for domestic shipment is 18.6 Kg. (41 pounds) and for foreign shipment, 27 Kg. (59 pounds). The apparatus is designed to operate on 110 volt alternating current and draws 0.85 ampere. Electrophysical and clinical evidence was obtained indicating that the instrument satisfies the Council's requirements for acceptance of electrocardiographs.

Sanborn Viso-Cardiette Model 51

The Council on Physical Medicine and Rehabilitation voted to include the Sanborn Viso-Cardiette, Model 51, in its list of accepted devices.

DeVILBISS STEAM VAPORIZER, NO. 149, ACCEPTED

Manufacturer: The DeVilbiss Company, 300-306 Phillips Avenue, Toledo 1, Ohio.

The DeVilbiss Steam Vaporizer, No. 149, is also referred to as the DeVilbiss Overnight Vaporizer and the No. 149 Electric Steam Vaporizer. It consists essentially of a water reservoir and an electric heating device. The heater is thermostatically controlled and intermittent in operation.

The device operates with 60 cycle alternating current at 115 volts; it draws 250 watts. The unpacked article measures, over-all, 28 by 19 by 32 cm. (11 by 7½ by 12½ inches) and weighs 3.3 Kg. (7 pounds 4 ounces). Packed for domestic shipment it measures 30 by 22 by 34 cm. (12 by 8½ by 13½ inches) and weighs 4.3 Kg. (9 pounds 6 ounces). The foreign shipping weight is 5 Kg. (11 pounds).

DeVilbiss Steam Vaporizer No. 149

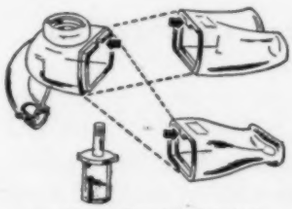
While the device is designed to vaporize about 300 cc. (10 fluid ounces) of water per hour, the degree of humidity attainable by it is limited by certain factors. The temperature of the window panes (determined by both outdoor and indoor air temperatures) determines the degree of humidity at which condensation will appear on the glass. Therefore calculations of anticipated humidity must take into account not only the volume of the room but also the fact that carpets, furnishings and other objects can absorb or release water vapor.

The Council obtained evidence from an acceptable source that, with the aforementioned reservations, the device worked as represented by the manufacturer. The Council on Physical Medicine and Rehabilitation voted to include the DeVilbiss Steam Vaporizer, No. 149, in its list of accepted devices.

AEROHALOR (POWDER INHALER) ACCEPTED

Manufacturer: Abbott Laboratories, Fourteenth Street and Sheridan Road, North Chicago, Ill.

The Aerohalor permits the administration of drugs, particularly antibiotics, by aspiration of the dust into nose or mouth. The device is made of a clear plastic and can be fitted either with a mouth piece or with an attachment that has two openings to be applied to the nostrils. The medicament is contained in a plastic cartridge with a sifter surface through which the powder is sifted into the stream of inspired air.



Aerohaler (Powder Inhaler)

The device weighs only 24 Gm. (less than an ounce). The shipping weight, including 3 cartridges, is 53 Gm. (1.9 ounce). The over-all dimensions are 50 by 35 by 70 mm. (2 by 1⅜ by 2¾ inches).

Satisfactory evidence was obtained that the device operates as represented by the manufacturer and is satisfactory for the administration of certain powdered drugs by inhalation. The Council on Physical Medicine and Rehabilitation voted to include the Aerohaler (Powder Inhaler) in its list of accepted devices.

GRASS ELECTROENCEPHALOGRAPH, MODEL III-C, ACCEPTED

Manufacturer: Grass Instrument Company, 101 Old Colony Avenue, Quincy, Mass.

The Grass Electroencephalograph, Model III-C, is an instrument designed to record brain waves by direct-writing (as distinguished from photographic) methods.

The instrument itself unpacked measures 68 by 66 by 120 cm. (27 by 26 by 49 inches), and these dimensions are the same for 4, 6 and 8 channel instruments. Allowance is made in the console for adding any number of channels to a total of 8. The net weight of an 8 channel instrument is 215 Kg. (475 pounds). The gross weight is approximately 355 Kg. (780 pounds). The instrument operates on alternating current and can be supplied for any common voltage or frequency. The power consumed is 100 watts plus 100 watts per channel. For an 8 channel instrument the power consumed is 900 watts. The weight and power consumed are correspondingly less for 4 and 6 channel instruments. Accessories include an Instruction Manual for the care and upkeep of the instrument.

Grass Electroencephalograph Model III-C

The specimen submitted by the manufacturer was tested in an electrophysical laboratory on the basis of the "Tentative Minimum Requirements for Acceptable Direct-Reading Electroencephalographs" published by the Council in THE JOURNAL Nov. 27, 1948. It was also tested under practical conditions in the clinic. The Council obtained convincing evidence that the instrument satisfied the published requirements.

The Council on Physical Medicine and Rehabilitation voted to include the Grass Electroencephalograph, Model III-C, in its list of accepted devices.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION
535 N. DEARBORN ST. - - - CHICAGO 10, ILL.

Edited by
AUSTIN SMITH, M.D.

Associate Editor
JOHNSON F. HAMMOND, M.D.

Editor for Current Medical Literature, GEORGE HALPERIN, M.D.

Subscription price - - Twelve dollars per annum in advance
Cable Address - - - - "Medic, Chicago"
SATURDAY, AUGUST 26, 1950

MODE OF ACTION OF ANTITHYROID AGENTS

The use of chemicals to control the hormonal activity of the thyroid gland is now commonplace in medical practice. Although the desirable and the toxic effects of these substances appear to be well known, their mode of action is much less well understood; hence a recent summary by Pitt-Rivers [1] will prove useful to those who are interested.

The thyroid possesses the power of concentrating iodide from the circulating blood and then fabricating it into thyroxin, the active portion of the thyroid hormone. The synthesis of thyroxin can be considered to occur in three stages: the conversion of iodide into iodine, which is believed to be an enzymatic oxidation; the iodination of tyrosine to diiodotyrosine, in which the iodine formed in step one is used, and the coupling of two molecules of diiodotyrosine to form one molecule of thyroxin. A substance which has antithyroid activity can presumably interrupt the sequence of this synthesis at any stage. In addition, an antithyroid drug may act indirectly on the thyroid either by influencing the pituitary gland directly or perhaps by altering the thyroid hormone itself after it has left the gland. Thyroid activity can also be influenced by destruction of the thyroid tissue in a number of ways, e. g., with roentgen rays or radioactive iodide.

Thiocyanate influences the activity of the thyroid by inhibiting the ability of this organ to collect iodide. Astwood [2] reported that the effect of thiocyanate can be counteracted by administration of iodide alone. This was interpreted as indicating that the thiocyanates attack the thyroid by breaking the chain of synthesis at the iodide-concentrating stage. Thus, if there was an excess of iodide to overcome the thiocyanate toxicity, the thyroid would be able again to form the hormone.

Among the compounds which are believed to exert their antithyroid effect by inhibiting the synthesis of the hormone either directly or indirectly are iodide, paraaminobenzoic acid, sulfonamide compounds, thiourea, thiouracils, aminothiazoles and 2-mercaptoimidazoles. There is also a possibility that thiocyanate may have some activity which would allow it to be placed in this class. The effect of iodide in suppressing the hyperactivity of the thyroid gland as found in toxic diffuse goiter has been known for a long time. Morton, Chaikoff and Rosenfeld [3] have shown by means of radioactive iodide that iodine is able to inhibit the synthesis of thyroxin in tissue slices of the thyroid gland. More recently, Wolff and Chaikoff [4] reported that in intact rats 60 per cent of a 10 microgram dose of iodide is converted to organically bound iodine in five hours, but when larger doses of iodide were given (50, 100 or 200 micrograms) significant amounts of iodide were not bound. Although there are many explanations of how iodide exerts an inhibitory effect on the thyroid, e. g., poisoning of enzyme systems, influencing the thyrotropic hormone of the anterior pituitary, or possibly combinations of these, the exact manner of action is not yet known.

Astwood and associates [5] and the MacKenzies [6] early reported that some sulfonamides and also thiouracils produced hyperplastic changes in the thyroid with a loss of colloid. There was also a concurrent decrease in basal metabolic rate. The simultaneous administration of iodide could not prevent these changes, but when thyroxin was given the alteration could be completely reversed. This was interpreted as showing that these substances act by inhibiting the synthesis of the hormone in the thyroid and not by changing the power of the gland to concentrate iodine. There are two general types of theories postulating the mode of action of this class of antithyroid drugs. One group of theories proposes that the point of action of the drug is in influencing the enzyme systems which are concerned with the fabrication of the hormone. The other group of theories suggests that the direct action of these substances is on the hormone pathway through the antioxidative properties inherent in the compound. In this latter group the inhibition may occur either when the iodide is oxidized to iodine or when the diiodotyrosine is coupled to form thyroxin.

There is a large mass of experimental evidence in support of the concept that the action of thiouracil and related compounds is due to the direct reducing action of the antithyroid drugs. Miller, Roblin and Astwood [7] have found that thiouracil will completely inhibit the

1. Pitt-Rivers, R.: Physiol. Rev. **30**: 194, 1950.
2. Astwood, E. B.: J. Pharmacol. & Exper. Therap. **78**: 79, 1943.
3. Morton, M. E.; Chaikoff, I. L. and Rosenfeld, S.: J. Biol. Chem. **154**: 381, 1944.
4. Wolff, J., and Chaikoff, I. L.: J. Biol. Chem. **172**: 855, 1948.
5. Astwood, E. B.; Sullivan, J.; Bissell, A., and Tyslowitz, R.: Endocrinology **32**: 210, 1943.
6. MacKenzie, C. G., and MacKenzie, J. B.: Endocrinology **32**: 185, 1943.
7. Miller, W. H.; Roblin, R. O., and Astwood, E. B.: J. Am. Chem. Soc. **67**: 2201, 1945.

iodination of tyrosine at p_H 7.4, indicating that the substance prevents the conversion of the diiodotyrosine to thyroxin. In a study of approximately forty compounds, Taurog, Chaikoff and Franklin [8] found a definite correlation between the ease with which the antithyroid compounds could be oxidized and the effectiveness in inhibiting the conversion of radioiodide to radiodiiodotyrosine. The antithyroid activity of any compound must be an expression both of its reducing power and of a specific effect on iodide, which prevents the conversion of inorganic iodide to diiodotyrosine. The therapeutic destruction of thyroid tissue by use of roentgen rays has been replaced in many instances by the use of radioactive iodide. This latter substance has the advantage that it results in little injury of nonthyroid tissue. The mode of action of this type of radiation is not yet completely described, but the effect is in general similar to either a complete or a subtotal thyroidectomy.

As more knowledge of the mode of action of these antithyroid drugs is assembled, it will be possible to describe in detail how each of them works. This will undoubtedly make their therapeutic use more effective and possibly more selective. In addition, it may be possible for the chemist to manufacture antithyroid agents for the specific needs of various disease states.

SERUM TEST FOR ACTIVE TUBERCULOSIS

Older serologic methods for the diagnosis of tuberculosis are unsatisfactory. Serums from patients with active tuberculosis often fail to react. Serums from normal persons often give positive reactions. These difficulties presumably arise from lack of a suitable reacting antigen. An improved antigen was therefore suggested by Middlebrook and Dubos,[1] consisting of the water-soluble (rich in polysaccharide) fraction of mammalian tubercle bacilli adsorbed on sheep erythrocytes. Serums from tuberculous patients give specific hemagglutinations with these activated erythrocytes.

A modification of this antigen is currently proposed by Rothbard [2] and associates of Montefiore Hospital, New York City. Instead of the "polysaccharide" extract of tubercle bacilli, they exposed sheep erythrocytes to more readily available, concentrated old tuberculin, which undoubtedly contains the polysaccharide fraction. To make the test, the patient's serum is heat inactivated and then freed from interfering antibodies by adsorption on normal sheep erythrocytes. In control tests with the resulting reduced serums from 216 nontuberculous patients, 203 showed negative reactions. Twelve of the remaining serums showed a 1:2 titer hemagglutination. One normal serum showed a 1:4 titer. No higher titers were noted.

Among 168 patients with active tuberculosis 155, or 92.3 per cent, showed positive hemagglutination reactions in titers of from 1:8 to 1:512. The serums of 33 persons with arrested tuberculosis showed only two positive reactions in a titer of 1:2. Monthly tests of a group of 120 tuberculous patients showed a gradual disappearance of antibodies with clinical improvement. In 10 of these cases antibodies are no longer detected.

From these and other observations the New York clinicians conclude that the new hemagglutination reaction is a relatively specific test for active tuberculosis.

HYPERTENSION IN TOXEMIA OF PREGNANCY

Hofbauer [1] suggests a new approach to the problem of the etiology of vascular hypertension in toxemia of pregnancy, namely, the study of the disturbed balance in certain hormonal regulatory mechanisms and homeostatic adjustments of normal gestation. The various factors involved in the imbalance are to be seen in the hyperactivity of the pituitary, the adrenal cortex and the accessory medulla-like formation occurring in the cervical ganglions during gestation. Attention is called particularly to the pronounced secretory activation of the chromaffin elements and their numerical increase in certain sympathetic ganglions located lateral to the upper wall of the vagina and the cervix. These structures were described by Frankenhäuser, who observed their enlargement during gestation in human beings. The cells of these ganglions, rich in chromaffin elements, display a close resemblance to the pheochromocytes of the adrenal medulla. The structure appears to act during the gestation as an accessory adrenal-medullary tissue functionally interrelated with the hypophysis, the adrenals, the ovaries and the placenta. The histochemical appearance in the pregnant state of these pheochromocytes points to the increased formation of epinephrine, norepinephrine or allied substances. The enhanced chromaffin activity of these ganglions has a stimulating effect on the anterior pituitary-adrenocortical system. Certain physical factors in the second half of the gestation or during labor act mechanically to increase the release of epinephrine secreted by these cells into the circulation. In preeclampsia, Hofbauer points out, pronounced eosinopenia, sodium and chloride retention, increased urinary 17-ketosteroids and uric acid excretion afford sensitive indicators of anterior pituitary-adrenocortical stimulation, with the activation of pituitary adrenocorticotropic hormone secretion most likely due to epinephrine.

8. Taurog, A. L.; Chaikoff, I. L., and Franklin, A. L.: J. Biol. Chem. **161**: 537, 1945.

1. Middlebrook, G., and Dubos, R. J.: J. Exper. Med. **88**: 521, 1948.

2. Rothbard, S.; Dooneiff, A. S., and Hite, K. E.: Proc. Soc. Exper. Biol. & Med. **74**: 72 (May) 1950.

1. Hofbauer, J.: Pregnancy Changes in the Uterine Cervical Ganglia (Frankenhäuser) as Causative Factors of Vascular Hypertension in Toxemia, Am. J. Obst. & Gynec. **59**: 1383 (June) 1950.

WASHINGTON NEWS

(From the American Medical Association Washington Office)

Mandatory Military Calls for Physicians

Announcement by Selective Service that 50,000 more draftees will be inducted into the Army in November suggests that other mandatory calls for military physicians may be expected. In connection with this call, the Selective Service director, Major Gen. Lewis B. Hershey, observed, "You don't have to be a prophet to see that we're running at the rate of about 50,000 a month."

Regarding the requirements for additional medical men, an Army spokesman said: "It was made plain that our call for 734 reserve medical officers (August 11) was an initial call. We have said that these were to meet our immediate requirements. Obviously we will have to meet our future requirements as they develop. These 50,000 men General Hershey is talking about will represent a demand on us at some time in the future for more medical officers."

Although this spokesman declined to apply a doctor-troop strength ratio to the new draftees, it is obvious from past experience that several hundred more physicians will be required for their care. The 50,000 constitute just one month's call, and there probably will be subsequent quotas.

Under present law, the only way the services can be assured of more doctors is to order up reserves, who in almost every case are men who already have had varying periods of active duty. Developments on Capitol Hill indicate this situation may be corrected before many weeks.

The Senate Armed Services Committee has indicated a desire to hurry action on legislation which would induct former ASTP, V-12 students and others who have had little or no active duty. At this writing, the committee's staff is at work on the proposed legislation and there is indication that hearings will be scheduled as soon as this preliminary research has been completed. The House committee has given no suggestion as to when it will act.

If this bill is passed before adjournment, its effect should be to greatly reduce the number of present reserve officers ordered to active duty.

Air Force

The Air Force, which up to mid-August had avoided compulsory call-ups of medical reserves, probably will not be able to hold out much longer. In some ways its personnel problem is more critical than that of the other two services. Because the Air Force was not made into a separate department until after World War II, its reserve roll is relatively small—1,100. As a further complication, at least 700 of these men have the rank of major or higher, leaving only 400 company grade officers, the group in greatest demand. When the Air Force starts to call its reserves, it will encounter another difficulty. Correspondence already has established that a high percentage of its company grade reserves—perhaps 50 per cent—are in doctor-scarce communities and therefore eligible for deferment.

The Air Force has stated that its immediate needs are for 300 officers and that a total of 800 will have to be on active duty by next spring. Because it is apparent these cannot come from Air Force reserves alone, this service is keeping a watchful eye on the doctor-draft legislation. If this bill does not pass, one solution would be for the Secretary of Defense to assign Army and Navy reserves to active duty in the Air Force.

Cooperation Between Medical Societies and the Army

Reports from the field generally indicate close and effective cooperation between state and local medical societies and Army commanders who are responsible for calling up quotas of reserve officers. Army commanders are under orders to make every effort to obtain the help of medical societies in selecting reserves to be called, but the responsibility to produce the required physicians is theirs. In some cases there are reports that societies are not reacting promptly, which leaves the commanders no choice but to call up men on the advice of their medical staffs but without the guidance of the civilian profession.

Initial Call

More details on the initial call-up: Officers selected are being given a minimum of 21 days to get their personal affairs in order before reporting for duty. . . . Alerted men may volunteer up to the time their orders are cut, thus qualifying for the extra $100 per month pay. . . . Army commanders are under strong advice not to call up a reserve who is practicing in a one-doctor community. . . . The schedule calls for one third by September 22, another third by September 30, and the remainder by October 6. . . . Women physicians who volunteer for active Army duty (they get the extra $100 also) will reduce the quota for each area.

One Year Volunteers

As a consequence of its first call-up of individual reserves for 21 months, the Army decided to exercise its right not to accept additional one year active duty volunteers. Under the 1947 law which provided the $100 bonus pay, the Army may refuse or accept one year active duty volunteers. Now volunteers sign up for 21 months. The Navy still will accept reserves for one year and pay the bonus. However, the whole discussion might be academic. The services are authorized to freeze officers for the duration of the emergency.

National Conference on the Aging

In three crowded days of sometimes confusing maneuverings and discussions at Washington's Shoreham Hotel, 800 delegates looked into all phases of the problems of the aged and aging. It was the meeting of the National Conference on the Aging, proposed by President Truman and sponsored by the Federal Security Agency.

Work was divided among 10 sections, each of which in turn subdivided itself into half a dozen or more committees to focus on one subject. At the conclusion, each committee put together a brief summary. Later a final conference report will be published, with a chapter devoted to each section. Some delegates argued that annual meetings of this type should be held, but others said the best plan was to wait to see what concrete results followed this initial conference. In general sessions, delegates passed resolutions urging Social Security coverage for all aged, adult education programs, public housing for the aged, better Civil Service jobs for the aged and the elimination of age as a determining factor in retirement.

Health Maintenance and Rehabilitation.—Under the chairmanship of Dr. Dean W. Roberts, the section on health maintenance and rehabilitation subdivided its work into seven committees and armed each with a set of questions to guide the discussions.

In general these health authorities reported a lack of information about causes of "old age" and the need for research to determine and eliminate or lessen the causes. One committee recommended a national survey in connection with the census to determine illnesses and infirmities of the aging population, as well as a series of smaller studies to determine familial factors in such conditions as hypertension and muscular and skeletal deficiencies. It urged that medical schools emphasize geriatric problems and that county medical societies cooperate and give leadership in studies undertaken locally and nationally. Another committee recommended regular thorough physical

examinations, another that hospital wings or clinics be set aside for the chronically ill and another that education of the aged along lines of preventive technics be established. A specific recommendation of the Committee on Rehabilitation in regard to education reads, "The American Medical Association through its permanent Councils should institute in-service training among their component societies to deal with the problems of geriatrics." All committees recommended research in geriatrics and education of the aged and the young in preparation for aging.

U. S. Role in Solving Problems of the Aged.—The hundreds of physicians, social and religious workers and engineers obviously were not of one mind as to the role the federal government should play in the support, education, maintenance and health of the aging. While the conference itself passed a resolution recommending that a National Council on Aging be established in the Federal Security Agency and that a U. S. Institute of Gerontology be set up for research, this demand for federal leadership was balanced by similar demands for state and local action instead. One section (Family Life, Living Arrangements and Housing) urged greater federal participation, but most others tabled similar resolutions and some specifically pointed out that the problem was one of local responsibility. The section on Community Organization declared: "While each local community should assume as much responsibility as possible and 'not pass the buck,' many cannot solve the problem alone. Thus planning for the aging should be on a statewide basis, with many communities working together."

Disability Insurance

In a close vote, 188 to 186, the House declined to listen to more arguments for inclusion of total and permanent disability insurance, then went on to approve the Social Security Extension bill (H. R. 6000) by a vote of 374 to 1. The no vote was cast by Representative John W. Byrnes (Republican, Wisconsin). A small group of members, led by Representative Walter Lynch (Democrat, New York), had asked for an hour's time for a final effort to insert the disability section, which had been approved by the House but voted out of the conference committee. When they lost the vote, they joined other members in approving the conference report as read. The American Medical Association had consistently opposed the total and permanent disability insurance section. The day after the House vote, the Senate also gave final approval and sent it on to the White House.

Legislation

For the third time, the House Interstate and Foreign Commerce Committee has refused to report out a bill for federal aid to medical education. The latest bill voted on was H. R. 8886, introduced by Representative Andrew Biemiller (Democrat, Wisconsin) as a substitute for the previous bills but containing substantially the same provisions. The committee voted to table this by a one vote margin, 9 to 8. In explaining the committee's action, Representative Percy Priest (Democrat, Tennessee) said opposition apparently was based on the belief that "there is no defense need at the present time" and that the bill "needs further study." Defense Secretary Louis Johnson is understood to have joined the White House in endorsing H. R. 8886, although it would not produce any additional physicians for at least five years and possibly eight.

Three new bills touch on various phases of the military emergency: Senator Henry Cabot Lodge Jr. (Republican, Massachusetts) proposes in S. 4047 to authorize the Secretary of Defense to establish and conduct a program of research and development to increase the effectiveness of civilian defense measures. Representative Frances P. Bolton (Republican, Ohio) wants male nurses in military forces to be raised to a par with female nurses (H. R. 9398). Presently they are not commissioned but require much the same qualifications and training. Representative Thomas J. Lane (Democrat, Massachusetts) proposes a program for training of nurses for the armed forces, for governmental and civilian hospitals and health agencies and for defense industries. His bill (H. R. 9435) would accomplish this through grants to nurse-training institutions.

Extensive and sometimes bitter hearings on the question of how to handle rehabilitation problems on the federal level have produced still another idea. This is S. 4051, introduced by Senator Douglas (Democrat, Illinois), chairman of the subcommittee which conducted the hearings. It closely parallels recommendations made by the A. M. A. Earlier bills proposed three different and conflicting arrangements: 1. Retain major programs in this field in the Federal Security Agency. 2. Shift emphasis to the Labor Department, which operates the employment phases. 3. Set up a new independent agency to embrace all these efforts.

Senator Douglas's bill, which carries the names of six other Democratic Senators and two Republicans, would allow FSA to retain the major role in vocational rehabilitation through administration of a program of grants to states. In these the U. S. contribution could be no less than 40 per cent and no more than 75 per cent. Labor would continue its job placement and counseling functions, with new emphasis on services that the department can perform under the law. Rehabilitation activities within FSA would be given a semblance of independence through the creation of a separate "Bureau for Rehabilitation of the Disabled." With Congress hurrying toward an adjournment or recess, this bill has little chance of passage now, despite its strong support. However, it will receive serious attention in the next Congress.

Representative Helen Gahagan Douglas (Democrat, California) proposes to divide responsibility for air pollution between the Department of the Interior and FSA in H. R. 9379. This would authorize the Department of the Interior to conduct studies and disseminate information on ways of preventing or reducing air pollution. The Surgeon General would be responsible for a three year program of research and investigation of the extent of health hazards involved in air pollution. He would report directly to Congress on his findings.

The House Interstate and Foreign Commerce Committee has set up a special investigating subcommittee under the chairmanship of Robert Crosser (Democrat, Ohio) to look into the state of the nation's preparedness. Among its activities, the subcommittee will make a continuous examination of medical care, facilities and research to cope with epidemics, emergencies and bacterial warfare.

S. 3889, extending until 1956 authorization for $500 annual contribution to states for support of disabled war veterans in state institutions, was approved by the Senate Armed Services Committee.

Miscellany

The Public Health Service warns against uncontrolled use of BCG vaccine against tuberculosis. It recommends that "vaccination be limited to those persons who are particularly vulnerable to exposure"—physicians, nurses, hospital employees. . . . After a recent tour of the eleventh and twelfth naval districts, Rear Adm. Joel T. Boone, Navy Medical Inspector General, reports morale is high, "even among those doctors who have had their specialty training interrupted due to the present Korean situation." . . . The American Association of University Women has again called for an independent U. S. Office of Education, in view of present civilian and military needs. In the last few months several educational groups have passed resolutions to take the Office of Education out of FSA. . . . Breakdown of 24 billion dollars paid to persons under first 15 years of Social Security: nearly 10 billion to needy aged; over 2½ billion for the care of dependent children; about 8 million in unemployment insurance; 287 million to the blind; 3½ billion in old age benefits.

ORGANIZATION SECTION

BRITISH MEDICAL EDUCATION AND THE NATIONAL HEALTH SERVICE

A Report to the Trustees of the American Medical Association

HAROLD S. DIEHL, M.D.
Minneapolis
LOREN R. CHANDLER, M.D.
San Francisco
and
STANLEY E. DORST, M.D.
Cincinnati

In response to your invitation the above deans of three American medical schools spent the months of December 1949 and January 1950 studying the current status of medical education in Great Britain with particular reference to the impact that the National Health Service is having or seems likely to have on it. In making this study we conferred with the government officials concerned with medical education and with the National Health Service, with the officers of professional medical societies, with the deans and faculty members of most of the medical schools in England, Scotland, Wales and North Ireland, with distinguished representatives of the medical profession, with a number of general practitioners and specialist consultants, with hospital residents, with medical students and with a number of laymen concerned with medical service and medical education.

The cordiality with which we were received was heart warming. The freedom with which information was made available to us and the frankness with which problems and points of view were discussed were most helpful. It was this splendid cordiality and cooperation which made our assignment a pleasant and possible one.

BACKGROUND

General.—Though it was the primary obligation of your committee to concern itself with medical education in Great Britain, in prevailing circumstances, it is impossible to divorce the problems of medicine and, more specifically, those of medical education from the matrix of the basic society in which they have developed. Any attempt to understand the situations in which British medicine finds itself today without some attention paid to economic and social developments of the relatively recent past would be futile.

First, the real significance of the relationship of total area to population must be clearly comprehended. We in the United States speak rather patronizingly of the "tight little Isle" but many of us who are familiar with the cities and countryside of Britain fail to understand the exceedingly grave significance of this trite phrase. Before we accept the argument that what can be made to work, or indeed what might actually be necessary for Britain in present circumstances, could be made to work or might provide a profitable example for the United States to follow, we would be wise to consider a few facts relating to geography, vital statistics and economics.

Great Britain has a total expanse of 94,200 square miles—an area only slightly larger than the state of Minnesota—and its population totals in excess of 50,000,000. However, it must be emphasized that Scotland and Wales, largely mountain wasteland, occupy together 39,000 square miles and support a population of only 8,000,000. Therefore, England alone, an area of 51,000 square miles (Illinois has 56,400 square miles) must support over 42,000,000 persons. The maintenance of this large population in so small an area was possible only through intense concentration in industrial cities which brought wealth to buy the necessities of life from other nations by functioning as the factory of a great empire and of a large part of the world beyond that empire.

Today, unfortunately for Britain, the population remains and grows, while the market has shrunk to a shadow of its former greatness. In order to meet an extreme emergency the British people, with considerable fortitude, have resorted to extreme means. Socialism and what is called the Welfare State in Britain cannot and should not be regarded as an expression of evolutionary social and economic advance to be emulated widely by more fortunate nations. It is rather more comprehensible when considered as a policy of desperation, revolutionary in nature and devised to forestall economic and social disaster.

The National Health Service Act cannot be considered apart from the centralization of governmental power now invested in the several ministries which have expanded along with the Ministry of Health. It cannot be considered apart from the necessity strictly to control the distribution of the food supply by the machinery of continued rationing, apart from the necessity strictly to ration clothing and petrol, apart from the centralization of power in the government control of the banks, the public utilities, the railroads, the mines and the extending control over industry. These things are all interdependent parts of a whole, and the pattern has grown peripherally as the machinery functions.

It is not our business to attempt to evaluate the effectiveness of Britain's social and economic revolution. It is mentioned only to bring out the point that the National Health Service Act cannot be considered apart from the general pattern of national affairs which produced it.

It is generally conceded by all political parties that at the end of World War II only the British government controlled the money necessary for the maintenance and operation of the nation's hospitals, only the state could supply the money necessary for the support of the medical schools and the prosecution of medical research, and only the state could provide medical care for at least two thirds of the population. It is against this rather stark background that we must test the validity of the arguments voiced by many who occupy positions of high authority in the United States, arguments which contend that Britain's necessity should become America's virtue and by an equally revolutionary procedure.

It is our duty, also, to describe the wise application of certain important buffer mechanisms which were developed in Great Britain long before the introduction of the National Health Service Act—buffers devised to protect the traditional freedom of education and research from the immediate control of statism. So far these changes have worked most effectively as a system of checks and balances under the authority of the University Grants Committee, the Medical Research Council and the General Medical Council. It is most important to note that there is nothing analogous in the programs of the American protagonists of state medicine.

Social Legislation and Medical Education.—One cannot hope to understand the influence of social legislation on medical education in Great Britain without going back to the beginning of such legislation. It has its origin in the National Insurance Act of 1911. Out of this Act grew the system of panel practice in Great Britain which became effective in 1913. We have not the time to argue the virtues and the defects of panel practice, but we must assess its influence on medical education. At the onset there might appear to be no relationship whatever between the two, and there is little evidence that there was any impact at the level of undergraduate medical education. However, by the mid-thirties, after some 25 years of operation, the informed visitor from the United States could not have remained unaware of the influence of panel practice on postgraduate medical training at the hospital level.

In America, by 1935, the development of an integrated system of hospital internships and residencies approximated its present level. For more than 20 years practically every graduate of an American medical school had voluntarily acquired a year of hospital experience and by the mid-thirties more than 75 per cent of our medical graduates were completing two years

Dean of Medical Sciences, University of Minnesota, Minneapolis (Dr. Diehl); Dean, Stanford University School of Medicine, San Francisco (Dr. Chandler), and Dean, University of Cincinnati College of Medicine, Cincinnati (Dr. Dorst).

and more of hospital training before entering on the practice of their profession. The British pattern differed radically.

In the summers of 1935 and 1936 one member of your committee spent several months in England and Scotland and, to his surprise, learned among other things that only about 40 per cent of the graduates in medicine acquired any postgraduate hospital training. Conversations with medical students and younger general practitioners made it apparent that the immediate security of a panel practice dampened the ambition which would lead one to undergo the long and expensive training necessary if one was to qualify as a specialist or consultant. Furthermore, the number of registrarships (residencies) was limited. During this period the young physician was not, as a rule, provided residence but was compelled to support himself. The period of training was long, and there was considerable uncertainty that every person would be permitted to complete his registrarship. These factors deterred the majority of students from seeking a type of hospital training which was designed to produce a high degree of specialization and had little concern with the more basic problem of improving the quality of general practice.

As early as 1936 it seemed clear that panel practice had the effect of stultifying the general physician, leading from initial security to an overemphasis on quantity of practice rather than quality of work. At the same time a small but powerful group of specialists took over most of the advantages and privileges which stimulate continued self education and growth on the part of the individual doctor. The way in which the National Health Service is accentuating the differentiation between specialist and general practitioner will be considered later in this report.

University Grants Committee.—Another development of major importance to modern medical education in Britain was the formation of the University Grants Committee. Your committee would at the onset express its unqualified admiration for the way in which this important institution has met its obligations and its opportunities for more than 30 years. The University Grants Committee was appointed in 1919 with these simple terms of reference: "To inquire into the financial needs of university education in the United Kingdom and to advise the government as to the application of any grants that may be made by Parliament toward meeting them."

At the end of World War I the universities of the United Kingdom found themselves in much the same predicament as that in which the universities of the United States struggle today. There was not sufficient money available from traditional sources to carry forward the operation of universities in general and of medical schools and medical research in particular. It was decided that state help must be forthcoming, but, before government financial assistance to the universities began, the machinery which should provide a channel through which large sums of money might pass from Parliament to the universities without the possibility of political interference or political pressures had to be set up. For 30 years the University Grants Committee has discharged this difficult duty in a manner which has been universally approved.

The roster of the committee membership since its origin has been a panel of distinguished names. Appointment to membership has been accepted as a high honor carrying also a heavy responsibility. The responsibility has fallen on men and women equal to the task. Some conception of the stability of the committee may be gained from the fact that only recently two of the original members, appointed in 1919, have retired.

Recommendations for grants to universities are made on a five year basis, and it has been the policy of the committee to recommend block grants, leaving the details of expenditure in the hands of local university authorities. Only in the instance of grants for medical education and medical research have they departed from their established custom, when in response to the recommendations of the Goodenough Report the committee decided that for a "short period" it would be necessary for money to be specifically earmarked for medical purposes. Further, in view of the magnitude of the sums involved, the Goodenough Committee suggested "that the University Grants Committee," for technical reasons, "should be assisted by an advisory panel consisting of persons with expert current experience of the requirements of medical education and of the needs of 'teaching hospitals.'" Accordingly the University Grants Committee appointed a subcommittee of eminently qualified persons to assist in the studies and recommendations relating to the special field of medical education.

At the end of 30 years, the achievement of this committee, which serves as a buffer between the politicians and the universities, has been so satisfactory that, even in the face of a National Health Service Act, currently, medical education and medical research are not now and seem unlikely to become functions of the state, even though the state provides the greater part of their financial support.

The Medical Research Council.—The Medical Research Council, which also has a long and distinguished history, supplements and enhances the work of the University Grants Committee in Britain. This council derives its powers and its funds from the Privy Council and is therefore free from the dangers inherent in organizations which are directly subject to political pressures. Its primary purpose is the support and development of medical research, but it is free to interpret research in its broadest meaning. The council has the authority to approve long term research programs and has facilitated long term projects by reasonable policy of minimizing administrative details. Its membership, like that of the University Grants Committee, is composed of highly qualified persons, and it exercises the power invested in it in an effective and competent manner.

On all sides we heard only the highest praise for the work of these two institutions. Repeatedly we were told that without their unquestioned authority during the present socialization of medicine the National Health Service Act would have had serious consequences in the fields of medical education and research. Expressions of such opinions came not alone from medical educators but also, with equal frankness, from persons of high rank in the Ministry of Health. When we asked these same experienced persons for their opinions concerning legislation now pending in the Congress of the United States which would provide financial assistance to medical schools directly from an agency of government without channeling funds through an institution comparable to the University Grants Committee, they replied that, in their opinion, such a procedure could prove to be disastrous.

The General Medical Council.—This council, another important group concerned with medical education in Britain, is a government agency established almost 100 years ago (1858) to maintain a register of physicians qualified to practice medicine in the United Kingdom. The General Medical Council studies and makes recommendations concerning the medical curriculum and prescribes the minimum courses of instruction which medical schools shall give in order that their graduates may be eligible for licensure. The council also scrutinizes the examinations given by the various examining agencies whose diplomas entitle recipients to be included in the medical register. At the present time an amendment to the Act, which defines the duties and authority of the General Medical Council, is being proposed to give the council authority to visit the medical schools and appraise their capacities to provide adequate medical instruction and training.

The Goodenough Report.—The Inter-Departmental Committee on Medical Education under the chairmanship of Sir William Goodenough was appointed in March 1942, "to enquire into the organization of medical schools, particularly in regard to facilities for clinical teaching and research." The report of that committee has proved to be an event of importance in the history of medical education in Great Britain. The committee found that there was urgent need for radical improvement in the existing system of education and offered its recommendations as a program of changes and reforms which would be evolutionary in character and would require years in accomplishment. It is not possible, within the limits of this report, to discuss in detail the recommendations of the Goodenough Committee, but a few paragraphs may be devoted to its more important repercussions on the work of the medical schools.

High on the list of the committee's findings was the urgent need for much larger financial support from public funds for both undergraduate and postgraduate medical education. The

committee estimated that the amount of money needed as recurrent grants from public funds by 1951-1952 would be at least five times what it was in the last year before the recent war (approximately $15,000,000). In 1945 the then Minister of Health recognized the fundamental importance of medical education and research to the country's health, and the government accepted the principle of increased grants for medical education and agreed that these additional resources provided from the Exchequer funds "should be distributed as grants *through the machinery of the University Grants Committee,*" which would, in accordance with its established custom, deal directly with the authorities of the various universities. Since that time a Socialist government has come into power and a National Health Service Act has become effective, but the procedure outlined for the distribution of large grants of public money is carefully observed.

The committeee urged also that a medical student needed more than a mere technical training. He should have a university education that would send him into practice "with a well disciplined mind, wide human interests and an intelligence able to move with the progress of human knowledge." Finding that a large proportion of medical students were not receiving a university education (they still do not) the committee recommended that the training of undergraduate medical students should be the responsibility of university medical schools. This recommendation, important though it would seem, is still being met too frequently through paper organization only.

Another and exceedingly important educational reform recommended by the Goodenough Committee sought to increase the number of full time posts in the clinical departments of the medical schools. It was hoped that these new full time academic heads would be in fact, as well as in name, the chiefs of their departments, with responsibility for the coordination of clinical teaching and with jurisdiction over associated clinical and laboratory facilities. We shall have some things to say concerning the current frustration of this hope in the section of our report dealing with clinical teaching.

Finally, the Goodenough Committee made a strong case for the payment of the part time clinical teachers. This recommendation found fulfilment under the conditions regulating the payment of specialists in the National Health Service Act.

EFFECTS OF WAR AND POSTWAR CONDITIONS

In addition to the influence of the National Insurance Act of 1911 and its subsequent amendments and the effects of the great depression and other economic changes since World War I, health services and medical education were affected profoundly by the last great war. World War II was savage in its treatment of the British civilians as well as of its military personnel. Educational programs of millions of persons were interrupted at all stages. Scientific personnel were diverted from peace to wartime efforts. Medical faculties were reduced to a minimum. Facilities were damaged and in some places destroyed, so that all medical schools and teaching hospitals functioned under the most difficult conditions imaginable. One medical school official told us his hospital and school were hit 132 times during the "blitz," and much of the plant was abandoned for the time. The remaining personnel were badly overworked, but in the face of all this, the medical schools carried on. Most of the schools in London were evacuated from the city to temporary facilities in safer locations. This meant establishing a teaching program in quarters unaccustomed to the inexperienced in medical education.

Early in the war, the central government created an Emergency Medical Service. Under this act all hospitals received a subsidy from the government for which they set aside a certain percentage of their beds to provide care for patients with war injuries among either civilian or service persons. Such subsidies at times amounted to 50 per cent of the hospitals' operating costs. The government, through the University Grants Committee, increased the appropriations to medical school budgets. Private income, gifts and bequests were reduced. In this way the medical schools and their teaching hospitals survived six years of war.

The subsidy to hospitals under the Emergency Medical Service was discontinued in 1946. About the same time demobilization of medical personnel and young men whose education had been interrupted reached its peak. For the most part, hospitals were insolvent. Earnings of the people were low, and hospital endowments were inadequate to meet the costs of operation. Rehabilitation by the government of war-damaged buildings was slow, and priorities for construction had to be established on a national basis. Funds for hospital operations were provided from charges to and contributions from patients, from workman's insurance, from endowment income and from gifts and subscriptions. Under the National Health Service Act the contributions from union members have been discontinued. All operating costs and capital expenditure are provided through the budget of the Ministry of Health, and patients are hospitalized free of charge. In England, but not in Scotland, each teaching hospital has its own governing board responsible directly to the Minister. These hospitals have been permitted to keep their endowments. Nonteaching hospitals have been grouped into 14 regions, each with a Regional Hospital Board which operates the hospitals located in its region.

Before the war, medical school funds were provided, on the average, by about one third from tuition, one third from endowment and one third from the University Grants Committee. We are advised that the appropriation from the University Grants Committee, made on a five year basis, now provides between 75 and 80 per cent of the medical school budgets and amounts to £3,500,000 each year. This increases tremendously the operative budget of each school.

Scholarships provided from several sources, but chiefly from the Ministry of Education, have increased greatly in number. Another important source of scholarship aid appeared in the form of educational grants to veterans, not unlike our own veterans education benefits. We have been told that before these scholarships and educational grants became so available, less than 20 per cent of medical students were receiving scholarship aid. Now all agree that at least 75 per cent and in some schools nearly 90 per cent of students receive financial assistance from the state.

Generally speaking, this early postwar period was one of considerable confusion and insecurity and certainly a period of financial instability. Everyone with whom we talked in Great Britain agrees that financial aid had to be provided by the national government, but few are satisfied with what has taken place. Although there is wide difference of opinion concerning the execution of the Act, all advisors are agreed that these changes should have taken place gradually by evolution rather than suddenly by revolution.

UNDERGRADUATE PRECLINICAL MEDICAL EDUCATION

Medical education in Britain, as in most other parts of the world, began as an apprentice type of training. Originally this was conducted by individual physicians. Then, as hospitals were established to care for the sick poor, medical training became associated with them. In fact, most of the medical schools of England were developed and, until relatively recent years, controlled by hospitals. In Scotland during the eighteenth century and in the provinces of England during the nineteenth century the medical schools became integral parts of universities. In London, as a result of the long and honored tradition of the hospital schools and the lack of intimate university associations, most medical schools remained much longer as independent and autonomous institutions. Today all twelve of the medical schools in London are affiliated with the University of London, but in most instances the ties are far from intimate.

Medical Students.—In the early days most medical students entered clinical training directly from secondary schools. Then, as an understanding of the biologic and physical sciences came to be recognized as of importance for the study of medicine, these subjects were incorporated into the medical curriculum. To provide for their teaching some hospital-medical schools organized departments of biology, chemistry and physics. Schools with such departments are known as complete medical schools. This group in London includes Guy's Hospital Medical School, Middlesex Hospital Medical School, the Royal Free Hospital School of Medicine, St. Bartholomew's Hospital Medical School, St. Mary's Hospital Medical School and St. Thomas' Hospital Medical School. Students enter these schools directly

from secondary schools at 18 or 19 years of age. The London Hospital Medical School has a complete school except for the year of premedical science which is taken at Queen Mary's College.

The other London schools, namely, Charing Cross Hospital Medical School, King's College Hospital Medical School, St. George's Hospital Medical School, University College Hospital Medical School and Westminster Medical School, accept only students who have had their premedical science year and their two preclinical years at some college or university. In the Scottish, Welsh, North Irish and English provincial university schools biology, chemistry and physics are taught by the university departments but are considered as part of the medical curriculum. This makes it necessary for these schools, as well as for the complete medical schools, to select their students at 16 to 18 years of age.

Prior to World War II the number of applicants for admission to medical schools was but little in excess of the number of places available for entering students. As a result practically all applicants who met minimum entrance requirements gained acceptance. Since the war this situation has changed completely, so that there are today several times as many applicants for admission to medical schools as can be accepted. This has resulted in a more careful study and selection of applicants. Even now, however, the time and care devoted to this important responsibility is far less than is the case in most of the medical schools in the United States. Nevertheless, the opportunity to select from a larger group of applicants is resulting in a higher average level of ability among medical students than was the case in the past.

Two notable differences between British and American Medical students are worthy of special mention: (1) the larger proportion of girls in the British schools, the over-all average being about 25 per cent, and (2) the relative immaturity of the typical British medical student. Under the American system, medical students have had three or four years of college or university work and are 21 or 22 years of age when they enter medical school and embark on the study of anatomy and physiology. By contrast, the typical British medical student enters on the study of these basic medical sciences at 18 or 19 years of age. Being younger and less mature, these students are much interested in sports and extracurricular activities, to which they devote considerable time and interest throughout their entire medical course.

It is impossible at this time to foresee what effect the National Health Service may have on the desire of able young men and women to study medicine. Some feel that professional prestige, satisfaction and rewards will be so reduced by the nationalization of medicine that in the future young men and young women will be less frequently attracted to it. Others feel that the esteem of the public for the profession will not be impaired and that the opportunities for service which it offers will continue to be attractive to able and idealistic young persons. Which attitude will prevail only time can tell. It is certain, however, that medicine will not continue to be an attractive profession unless the conditions for practice are satisfying and professionally rewarding. If the current feeling of frustration among general practitioners continues, the future of this "backbone of the profession" is in grave doubt.

Financial Aids for Medical Students.—Since the end of the war, as already pointed out, a large proportion of medical students have been supported in part at least by government grants. Many of these grants have been made on the basis of military service. Others have been awarded, usually by local government agencies, on the basis of qualifications but without regard to the field in which a student wishes to study.

There is a profound change from the traditional situation when, except at Cambridge and Oxford, few scholarships were available and medical students were drawn almost exclusively from families that were able to finance a long and expensive professional education.

As to the effect that this change in the recruitment of medical students may have on the profession, there is some difference of opinion. Some fear that those qualities other than intellectual ability which are essential in a truly fine physician, may not be given the weight they deserve in the selection of medical students. Others insist that this need not be true and call attention to the many distinguished graduates of medical schools in Scotland, Wales, Ireland and some of the English provinces, where it has always been more possible for a "poor boy" to secure a medical education than it was in London.

A problem that is causing more concern is that of providing a sufficient number of educational grants to meet the needs of medical students when the war service grants, which are diminishing rapidly, come to an end. The great curtailment of personal incomes in Britain has made it impossible for most families to support a son or daughter through the medical school. This means that many more educational grants for medical students will need to be provided if the number and quality of medical students are to be maintained. Whether or not the government can and will provide the additional funds needed for these grants is an important question.

If additional scholarships are provided, there is some fear that pressure may be exerted on medical schools to admit applicants to whom scholarships have been awarded by a government agency. No such pressure has been felt to the present. In fact, most educational grants are contingent on the applicant's gaining admission to a recognized university. Conversely, a student who is accepted for admission at Oxford or Cambridge will almost certainly be able to secure an education grant from his local government authority in case he needs it. Most educational authorities are satisfied that the universities and medical schools will continue to have complete freedom in the selection of students even though an increasing proportion of them are supported by the state. On the other hand, some thoughtful and well informed persons have apprehension on this point.

The Number of Medical Students.—A nationalized medical service implies a national obligation to provide a sufficient number of physicians to carry out this service properly. In fact, the Goodenough Committee called attention to the fact that "the essential foundation of a comprehensive health service is properly planned and carefully conducted medical education," and that "assistance from public funds will be needed for medical education."

The report of this committee suggested that with increased financial support certain medical schools could give an adequate medical education to more students than it had been customary for them to accept, that many schools were accepting all the students their facilities or faculties would justify, that a few schools were taking too many students and that the extracurricular schools of the Royal Colleges in Scotland and one undergraduate medical school in London should be discontinued.

The University Grants Committee gave impetus to the recommendations of the Goodenough Committee by embodying many of them in its own suggestions to universities. Included among these were suggestions as to the number of students accepted for medical education.

Directly related to the number of medical students is the important question, Should more physicians be trained to meet the needs of the National Health Service? The early impression was that considerably more physicians would be needed. With the passage of time, however, there seems to be less certainty of this, particularly since young physicians, both specialists and general practitioners, are finding it difficult to find hospital appointments as consultants or panel openings for general practice. The proposed expansion of existing hospitals and the building of new hospitals will create more places for consultant specialists, but, in view of the shortage of building materials, the difficult economic situation and the high priority given to housing and industrial building, these developments appear to be a long way in the future.

In the field of general practice one of the great difficulties is the excessive number of patients on the panels of most practitioners. The maximum number to which a physician now is allowed to build his panel is 4,000 persons, although those who had more than this number of patients when the limit was put into effect have been permitted to retain them. Anything approaching 4,000 persons per physicians means poor medical care, but, in order to have a reasonably satisfactory income, many physicians are accepting approximately this number. The obvious way to improve this situation would be to increase

the physician's fee per patient and reduce the number of persons that a physician is permitted to accept on his panel. If this were done, more general physicians would be required but, unfortunately, considerably more money to finance the service—this at a time when serious questions are being raised as to whether the country can afford the amount of money now being expended on its welfare state.

Teaching Facilities Needed.—Most medical schools in Great Britain are urgently in need of improved facilities for medical teaching and research. A decade of economic depression followed by a decade of war and postwar disturbances have not only prevented medical schools from obtaining the new facilities and equipment they need but have resulted in deterioration and in some instances in partial destruction of the facilities which the medical schools possessed 20 years ago. Capital grants by the University Grants Committee and the National Health Service have made it possible for the medical schools and their teaching hospitals to obtain new equipment over the past few years. Unfortunately, major improvements and needed expansion of laboratories and of teaching hospitals do not appear possible in the near future.

Teaching Staffs.—The teaching staffs of the basic science departments of medical schools suffered seriously from the disruption of training in these fields during the war. The resulting shortage of teachers in these departments was further aggravated by the advent of the National Health Service with its preferential salaries for clinical consultants and hospital residents. The result was that many young physicians left teaching posts in the basic sciences to take training as clinical specialists. Realizing the seriousness of this trend, the medical schools and the universities requested additional funds to improve the salaries of basic science teachers. The University Grants Committee approved these requests and the Treasury provided the needed funds. As a result, the basic science teachers in most medical schools are receiving salaries only about £200 to £250 less than teachers of corresponding rank in clinical departments.

This action not only stopped a potentially serious exodus from the basic science departments but is providing a basis on which improved recruitment for careers of teaching and research in the basic medical sciences should be possible. This is a favorable though indirect effect of the National Health Service on the medical schools.

Another possible effect tending in the same direction, according to some young physicians, is that the unsatisfactory aspects of the life of the general physician and the limited number of consultants for whom there will be positions in the National Health Service may influence an increasing number of able young physicians to think favorably of possible careers in teaching and research.

The Medical Curriculum.—The typical British medical school curriculum, except for Cambridge and Oxford, covers six academic years. The first year is devoted to biology, chemistry and physics. A student, however, may take these subjects in secondary school and on the basis of an examination be exempt from them in medical school. Approximately one third of the students gain exemption in this manner. The examination in biology, chemistry and physics is called the first M.B. examination.

After passing the first M.B., students are eligible to proceed to the study of anatomy and physiology (including biochemistry). The study of these subjects covers five terms or one and two-thirds academic years. The examination at the end of this period is called the second M.B.

After passing this examination the student devotes one term to general pathology, bacteriology, materia medica and clinical diagnosis. He then enters the clinical phase of his training. This period, which covers approximately three academic years, will be considered in the next section of this report.

The National Health Service has had little if any impact on the medical curriculum. Practicing physicians urge more attention to early diagnosis and the care of minor conditions and of emergencies, to the social aspects of medicine and the physician's duties and responsibility under the National Health Service. Over the past six years at least four major committees in Britain have studied and reported on the medical curriculum, making more or less sweeping recommendations for revision. But changes in medical education come slowly, and as yet but little has happened as the result of these reports.

UNDERGRADUATE CLINICAL TEACHING IN THE MEDICAL SCHOOLS

Reform in the teaching of clinical medicine along lines not too dissimilar to those which have developed in the United State over the past 30 years received considerable stimulation from the recommendations embodied in the Goodenough Report. Prior to 1942 only a very small minority of the clinical staff in the teaching hospitals held full time academic posts. Too frequently the men who filled the important senior positions were voluntary professors and they held membership on the staffs of widely scattered hospitals. Unpaid by the schools for their services and concerned primarily with the responsibilities of a large private practice, they were forced to devote most of their time and energy to the primary interest which earned their livelihoods.

Many of these voluntary professors were men of unusual competence who gave generously of their time to the teaching responsibilities they had undertaken, but their most sincere efforts were discounted frequently because of the lack of integration and cohesion which characterized the organization of the teaching hospitals. The clinical services are divided into small clinical units known in England as "firms" and in Scotland as clinics. Each firm is headed by a chief, and he, along with his assistants, controls a small number of beds and shares in the responsibility for outpatient work. The medical and surgical services of a hospital are each divided among five of six such firms. When the medical students enter the period of clinical training, they are assigned in small numbers to each of these groups and the clinical chiefs are responsible for their instruction as clerks in medicine and as dressers in surgery and obstetrics. Each firm conducts instruction as an independent unit, and there is a curious absence of supervision or control. Even in those few schools where full time professors had been appointed, the professor's firm was on the same footing as that of each of the voluntary clinical heads and he had no jurisdiction over the work of the service as a whole. Not even at the level of undergraduate teaching did he carry the authority which coordinated the instruction given by the several firms teaching in his own department.

To unbalance the system still further, the universities usually had little control over the selection of their clinical teachers. As a rule the medical school had to accept the members of the hospital staff (advanced by seniority) as its clinical teachers, since in order to obtain necessary clinical material it must gain access to beds by accepting as teachers the hospital firms which controlled those beds.

In such circumstances it is not difficult to understand why clinical research had proceeded rather haltingly in the British medical schools, nor is one surprised at the scarcity of clinical departments which possess the facilities to carry forward modern research incorporating the basic science disciplines of physiology, biologic chemistry, pharmacology and immunology within the departmental organization.

It was against such a background that the Goodenough Committee fashioned its report. It recommended, among other things, more full time appointments at all grades in medical schools and teaching hospitals; the appointment in each clinical department of an academic chief, full time or part time, who would be directly responsible for the organization of teaching and research within the department, and the payment of adjusted salaries to part time teachers for specific duties under the supervision of the professor. The academic head of the new department was to be in charge of all that related to teaching within his own department and for its proper correlation with teaching in other departments, but he was *not* to interfere in the operations of the several firms within his own department as they related to the clinical care of patients. From this division of authority a definite dichotomy has arisen which may result in sterilizing the basic idea, which seems of fundamental importance to the program, since an academic head of a department of clinical medicine who wields authority in educational matters but possesses no authority over members of his department in clinical matters is surely one who must tread a difficult path.

Through the machinery of the University Grants Committee funds were made available to provide additional full time chairs in the clinical departments of medical schools, thus implementing the recommendations of the Goodenough Report. Prior to the report there were only 11 full time clinical professors in the undergraduate medical schools of Britain. Four years later, in May of 1948, there were 40 full time professors in clinical subjects and there were many part time clinical teachers paid to devote a significant portion of their time to clinical teaching and research. The situation has improved, as these figures indicate, but it must be stated clearly that our visits to many medical schools which now have full time clinical professors did not reveal a general optimism regarding that status of those who hold the chairs.

In a number of instances the policy of establishing academic heads has not met with happy acceptance, and the dichotomy referred to previously has not always been compromised effectively. Furthermore, there still is a widespread prejudice in many clinical facilities against the basic conception of whole time professors. Those who oppose the idea contend that it will lead ultimately to the establishment of a corps of clinical department heads who have no understanding of the true nature of medical practice. Indeed, when one considers the strict limitations imposed by the British medical schools on the consultation activities of the whole time professor, it must be acknowledged that there is some basis for this fear. Certainly it would seem at present that the part time clinical professor who combines teaching, for which he is paid a salary, hospital consulting, also with salary, and some small amount of private practice has a great financial advantage over the full time, university-paid academic department head.

The result is that many competent men may not be attracted into whole time university posts, and some of the distinguished clinicians who accepted such positions, acting under the enthusiasm engendered by recommendations of the Goodenough Committee, are today frustrated and far from happy. Indeed, we were informed by several such persons, always in a thoughtful and objective manner, that in their opinions the impact of the National Health Service Act has reversed the trends which were so obvious in 1945 and that today they believe themselves further away than ever from the development of carefully integrated, cohesive teaching and research departments of clinical medicine.

With the institution of the National Health Service Act, it was believed by many responsible persons that the universities had been given opportunities for wider influence in the affairs of their teaching hospitals—in particular, a greater control over the selection of clinical teaching staffs. The Goodenough Committee had severely criticized the traditional procedure which gave the hospitals a primary influence in the composition of teaching faculties.

Under the new Act, by statute, the Minister of Health must provide hospital and specialist services for the nation. This responsibility is discharged chiefly through the intermediate authority of fourteen Regional Hospital Boards. In England and Wales the university teaching hospitals do not come within the jurisdiction of the Regional Boards but are administered by Boards of Governors responsible directly to the Ministry of Health. In Scotland and in North Ireland the teaching hospitals are in the hands of Hospital Management Committees appointed by and answerable to the Regional Hospital Boards. The universities must be consulted about the appointment of a minority representation on the Regional Hospital Boards. It is generally acknowledged that, as presently constituted, university opinion is fairly represented on these boards and that currently the university's position in relation to affairs in certain teaching hospitals is stronger than it was before the Act became effective. That this may not continue to be the case is the cause for grave concern in the university faculties of medicine.

The potential danger has been stated clearly during the past summer by Mr. L. Farrer-Brown, secretary of the Nuffield Foundation. Participating in a symposium on medical education, he pointed out "that the Act itself states that the hospital shall provide for the university with which it is associated such facilities as *'appear to the Minister* to be required,' not, be it noted, as appear to the university or even to the Board of Governors (of the hospital), but as appear to the Minister, who is the head of a government department whose essential duties are not educational. . . . Those concerned with medical education would no doubt like to know how the Minister proposes to inform himself of the nature and extent of the facilities that are required. This seems to be a matter on which watchfulness may prevent the growth of handicaps that no one desires."

"Watchfulness," the cumbersome chore of constant awareness in a bureaucratic system for which professors are untrained, has become the bane of existence within the faculties of medical schools. On every hand we heard the same complaint—committees have grown and pyramided to an unbelievable extent and consume too much of the time and energy of the full time faculties and of many of the part time department members. Committee work in the medical schools of Britain has grown to an absurd degree. It cannot be neglected or reduced, because committees form the essential machinery of bureaucracies, and only through participation and constant watchfulness may the universities hope to preserve any reasonable balance between their functions as educational and research institutions and their growing responsibility for service to the Ministry of Health.

Already the Minister has made his position in this respect quite clear, for he has told the Boards of Governors that a teaching hospital's primary function is to care for the sick, and so far all must agree, but he continues by instructing the governors that in fulfilling their responsibilities to provide the clinical teaching they must not allow the hospital's primary function to suffer. He has the ultimate authority in this difficult decision, which must strike a balance between the increasingly greater service responsibilities in wards and outpatient departments and what the universities, even in defiance of the Minister, must regard as their primary function, namely, teaching at the graduate and undergraduate levels and research.

As Mr. Farrer-Brown indicated, "The introduction of Ministerial power of deciding the facilities to be provided, together with the fact that clinical teaching facilities will presumably be paid for by Boards of Governors from monies they receive direct from the Ministry of Health for running the hospital, may lessen the power which the Goodenough Committee wished the university medical schools to be able to exercise in the teaching hospitals."

To prevent this from happening seemed to your committees to occupy an inordinate amount of the time of men who had been trained and selected to do something quite different.

LICENSURE TO PRACTICE

The privilege of practicing medicine in Britain is obtained by admission to the Medical Register. To qualify for this register, a physician must present a university medical degree, a diploma of the English Conjoint Board (an agency of the Royal College of Physicians and the Royal College of Surgeons), of the Scottish Conjoint Board or of the Society of Apothecaries of London. One also may be registered for practice in Britain by reciprocity with the Medical Register of the Republic of Ireland.

In the past years the several nonuniversity examining bodies rendered an important and valuable service. Among medical educators today, however, the consensus is that the purposes of medical education as well as of medical licensure would be served best if qualifications for licensure were limited to the examinations given by the universities. The preparation for and the varying standards of the extrauniversity examinations are disturbing and at times disrupt a year or more of many students' undergraduate clinical training.

EFFECTS OF THE NATIONAL HEALTH SERVICE ON POSTGRADUATE MEDICAL EDUCATION

Due to the several preexisting procedures and customs of medical training and practice in Great Britain and the tremendous impact of the recent war, it is difficult, indeed at times impossible, to distinguish clearly the direct effects of the National Health Service Act on postgraduate medical training. Throughout our study, however, it was clear that graduate training is far from satisfactory. Many officials and experienced educators, as well as the majority of the young physicians now in training, expressed grave doubts and fears over the present situation. Some presented an attitude of frustration.

Whether the conditions are continuations of preexisting circumstances, are due to the war and postwar adjustments or specifically are a result of the National Health Service cannot be determined by visitors during a six week study. It is too soon to assess the ultimate effect of the National Health Service on graduate medical education.

Nevertheless, many of the conditions observed or reported to us seem to be dependent on the Act or decisively influenced by it. These influences appear in four fields: training of "registrars" (equivalent to our resident trainees) as specialists in clinical medicine, training of the general practitioner, training of the public health officer or administrator and recruitment of teachers and investigators in academic medicine.

Registrars.—The term "house officer" is used to designate our intern and "registrar" our residency trainee. At the close of the war large numbers of young physicians sought training as specialist consultants. They received veteran grants for education until 1948. When the National Health Service became effective, registrars and consultants appointed to hospitals became salaried physicians under the Ministry of Health. The annual salaries range from £670 for junior registrars to £1,300 for senior registrars. The annual salaries for specialist consultants range from £1,700 to £2,750. All are appointed to the hospital by its Governing Board, an agency of the Ministry of Health. In addition to the basic salaries paid to the consultants appointed to hospital staffs, a series of distinction awards has been authorized. Although these awards are not yet in effect, the plan provides that certain consultants, recommended by a grading commitee, shall receive extra compensation for superior ability, 4 per cent to receive an additional £2,500, 10 per cent an additional £1,500 and 20 per cent an additional £500. Under the National Health Service all medical care in hospitals and their outpatient departments is provided by specialist consultants and the registrars working under their supervision.

Consultants may be full time or part time. Most are part time. Salaries are based on the time spent in the hospital, eleven half days being considered a full week of work for a consultant. Thus a part time consultant may receive one eleventh of a full time salary for each half day spent at the hospital. The remainder of his time not spent at the hospital as a consultant is his own. Most consultants spend from five elevenths to nine elevenths (the maximum allowed) of their time as hospital appointees and receive their salaries from the Ministry of Health through the Hospital Boards.

The favored position of the consultant under the National Health Service has a tremendous effect on registrarships. In fact, most returning veterans, as well as other recent medical graduates, hope to be consultants. Actual figures are not available, but of the young physicians and medical students interviewed by us, approximately 70 per cent hope to become consultants and have hospital practices.

Registrar training is now conducted by all teaching hospitals, by some nonteaching hospitals and by a group of specialist hospitals organized in 1945 as the British Postgraduate Medical Federation. This latter organization consists of thirteen specialist hospitals (neurology, laryngology, pediatrics and so forth) whose programs are under the academic jurisdiction of the University of London. Registrar training consists of at least six years of postgraduate experience in a special field after completing a year of internship or house officer training. The individual program may follow one of several patterns but usually consists of one year as junior registrar, two years as registrar and three years as senior registrar. Registrars rarely live in the hospital but maintain themselves in private homes. They are appointed by the hospital board, not by the medical school, though the boards frequently follow faculty recommendations for these posts.

Registrar training is almost entirely of a practical clinical nature. Although a registrar may serve on several hospital services, his training frequently fails to provide an integrated experience. Furthermore, in most hospitals registrars are so busy with medical care that there is little time and frequently little opportunity for library study. In fact, in many hospitals library facilities are rather limited. Only in rare instances did we find registrars participating in research.

It is obvious, and we were so advised by all of our informants, that registrar training at the present rate soon will saturate the need for consultants and result in a huge surplus after all consultant positions authorized by the state are filled. Indeed this point already has been reached in general medicine and general surgery. It is said that more than 500 physicians have completed their specialist training and now are unable to secure hospital appointments as consultants. Without a state appointment, they cannot practice their specialties and hope to mantain themselves. The Chairman of one Regional Board told us of eight vacancies for consultants in his region for which there were 122 qualified applicants. Another had one vacancy and had received 34 applications. However, certain specialty fields, notably psychiatry and neurology, laryngology, plastic surgery and neurosurgery, are short of qualified consultants, and such positions in regional hospitals may not be filled for several years. Recently a study has been made in Scotland of its consultant needs and the number of present registrar trainees. This study indicates that during the next ten years 169 consultants in all specialty fields will be needed to fill the positions the state has recognized, but at the present time there are more than twice this number in training.

Plans for the future include the construction of new regional hospitals, and, when these have been completed, an increased number of registrars and consultants will be appointed to staff them. It must be remembered, however, that building material is scarce, that there is a tremendous backlog of construction needs in the country and that requests for any new construction must be approved by the central government and priority as to need established. So there is every indication that any major program for new hospital construction lies well in the future.

Meanwhile outpatient and inpatient work has increased vastly. Hospital beds are scarce. Waiting lists for admission to hospitals now number in the hundreds. At one university hospital of 550 beds, we were told that the waiting list for admission on the general surgical service exceeded 1,200 patients. A patient with pulmonary tuberculosis usually waits several months at home before being admitted to a hospital.

Everyone is of the opinion that the present programs of registrar training is progressing rapidly toward a complete deadlock. What is to become of this abundant excess of specialists? Nobody knows. Some of our informants believe these men will be forced to enter general practice and thus waste years of training because they never will be able to conduct specialization in a panel practice. Others expect many of these young specialists to enter academic or research careers particularly in the fields of basic medical science.

General Practice.—The general practitioner no longer has access to a hospital for patients under his care. If his patients need laboratory tests, roentgen examinations or special study for diagnosis or treatment, he must refer them to a hospital. He then has no further responsibility for the medical care of his patient since he has no privileges in the hospital. His work is limited to home calls and office visits. Payment of general practitioners is on an annual per capita basis. Therefore, in order to have an adequate income, the general practitioner tries to keep as many patients on his list as possible.

The status of the general practitioner at the present time appears to be the most crucial defect in the National Health Service. Over the past 30 years, under the original system of "panel practice," there has developed a type of general practice which was limited largely to home and office care with some small opportunity for hospital practice. The National Health Service has extended this and has made the distinction between general practice and consultant practice in the hospital even sharper than ever.

In order to improve general practice, efforts are being made to provide general practitioners continued educational opportunities, financed by the Ministry of Health. Unfortunately, nothing has been done to make it possible for him to practice with greater competence after additional training. Opportunities for this postgraduate training have been made available in several ways.

Of the physicians now engaged in general practice, it is estimated that less than 60 per cent have had an internship of any kind. In recent years, this has been changed by a require-

ment that all physicians must serve a "house officership" of six months before entering the medical corps of the armed forces. As most students entering medicine defer their military service until they have completed medical school, all recent entrants to general practice have had at least that much hospital experience. Plans now are being formulated and legislation prepared to make compulsory a period of one year of hospital training before registering for practice. The passage of such legislation and execution of such a plan remains for the future however. And at the present, no hospital training is required after medical school in order to enter practice.

For young physicians wishing to enter general practice, traineeships are available. Essentially these consist of a year of apprenticeship or assistantship to a designated general practitioner. The Ministry of Health pays for these services. However, these traineeships are not at present very popular unless there is assurance that the trainee will remain with his superior as a full time assistant after completion of his year of service.

Refresher courses of two weeks' duration for general practitioners are available at several centers, both in London and in the regional areas. These two week courses have not been popular and in some places already have been abandoned.

Courses one-half day in length devoted to various subjects of importance to general practice are being provided by the Ministry. These courses may be taken by the physician at a teaching hospital where he can spend one to three half-days per week or may be conducted as extension courses in the regional hospital. Such courses usually extend through 11 or 22 half-day sessions. They generally consist of demonstration clinics or conferences, include a variety of subjects and are conducted by specialists. However, they have not been well attended. In one area the director of postgraduate training told us that the courses had been announced and advertised to more than 2,000 general physicians and only 40 have registered for them during the first year.

Another form of training for the general physician is known as a "voluntary assistantship." A physician may go to a hospital and spend up to three half-days per week on a voluntary basis, participating in the regular activities of any one of several departments. The number of voluntary assistants who can be accommodated at one time in a given department necessarily is limited. In some areas, however, these assistantship courses are being used fairly extensively.

Although the general practitioner can take postgraduate training at the expense of the Ministry of Health in any one of these several ways, surprisingly few men seem to be taking advantage of the opportunities. The reason most frequently given is that the general practitioner cannot practice medicine under present restrictions any more effectively after he takes the course—so why take it! The only way in which a general practitioner can improve his situation is to secure a greater income by increasing his patient load. The present system recognizes the *quantity* of work done by the general practitioner, but it has no way of rewarding improved *quality* of work. It actually obstructs effort in that direction. The resultant frustration of the man in general practice is by far the outstanding defect in British medicine.

The National Health Service Act has practically destroyed interest in training for the position of Public Health Officer or Administrator. There are at least two reasons why this is so: a reduction in the scope of the health officer's activities and a marked disproportion in his salary compared to the salary of the physician in clinical practice. On "the day of adoption" most of the duties of the Public Health Officer dealing with medical care, such as maternal and prenatal care, responsibility of special disease hospitals and so forth, were removed from his jurisdiction. His duties now are confined almost entirely to administration. Compared with clinical practice these duties are relatively unattractive to young physicians. In addition to this reduction in the scope of professional activities, the salaries for such positions, which are paid by the local government and not by the Ministry of Health, remain only slightly above the prewar level. When the income of consultants, registrars, dentists and general practitioners was increased significantly, little if any change was made in the salary of the full time health officer. As a result few physicians are applying for special training in hygiene and public health. In fact, many physicians serving as public health officers when the system changed now have resigned their posts and entered clinical practice. Although plans are under discussion to remedy this tragic situation, nothing has been done to date, and the source of the future full time physicians for the public health service is not now apparent.

Another result of the National Health Service must be mentioned again. That is the scarcity of outstanding and exceptionally qualified physicians for positions in anatomy, physiology, pharmacology and the other fields of basic medical science. At present the vast majority of superior young physicians are preparing for or already are in specialty practice. If medical education is to remain secure and of high quality, a considerable number of the teachers and investigators in these fields must be medically trained. Since the salaries for such positions have been increased in 1949, the outlook has improved somewhat. Nevertheless, the differential between the emoluments of academic medicine and clinical medicine is still too great for assurance that the preclinical sciences will secure their proper share of superior medical ability. Something more should be done, and preferably soon.

SUMMARY

1. No attempt should be made to evaluate the state of medicine or of medical education in Great Britain without careful consideration of certain fundamental facts relating to economics and geography, which in large measure have determined the direction taken by British society in the last 20 years. These facts, plus the devastating impact of the recent war, provide the necessary background against which British socialization of medicine must be studied.

2. It should be understood that with the end of World War II only the state controlled the money necessary to maintain and operate the hospitals of Britain, to finance the medical schools and promote medical research and to provide medical care for approximately two thirds of the people.

3. When these facts are fully comprehended it seems clear that what may be necessary and perhaps even admirable in Great Britain may be unnecessary and even undesirable in the United States. Whereas Great Britain resorted to revolutionary methods to meet a critical emergency, we still are fortunate enough to have the opportunity to work out our problems in a wiser way, employing evolutionary methods.

4. The origin of nationalized medicine in Britain is to be found in the development of panel practice which grew out of the National Insurance Act of 1911. An evaluation of panel practice in the mid-thirties suggested strongly that it acted to inhibit medical education beyond the bare minimum requirements for practice. At that time only some 40 per cent of medical graduates proceeded to hospital internship. As early as 1936 it seemed clear that panel practice had the effect of stultifying the general practitioner, leading from initial security to an overemphasis on quantity rather than quality of work. Indirectly it encouraged a development which was to split the profession into two groups—the overprivileged specialist and the underprivileged general practitioner.

5. The need for universities and especially for medical schools to seek public funds as means of operations at the end of World War I led to the formation of the University Grants Committee and the Medical Research Council. These institutions through the 30 years of their existence provide an admirable example of methods by which large state grants may be directed to universities without the danger of political influence.

6. The Goodenough Committee, in the early years of the recent war, made a critical study of medical education in Great Britain and brought forward recommenations which seem to the American observer to be long overdue. Whether the National Health Service Act will permit the development of the reforms suggested in the Goodenough report and more recently modified and strengthened in the Cohen report of the

British Medical Association or will bury these evolutionary changes in the machinery of bureaucracy is a most critical question facing British medical educators today.

7. World War II interrupted the education of millions of young men and women, damaged or destroyed hospitals and medical schools and critically depleted their faculties. British medical schools carried on under the most difficult conditions imaginable.

8. During the war the Central Government, under the authority of the Emergeny Medical Service Act, subsidized the hospitals frequently to the extent of carrying 50 per cent of their operating costs. When these subsidies were discontinued in 1946 most of the hospitals were insolvent. There was the very real danger of hospital closure on a nationwide scale, and it became apparent that large grants from public funds designated for hospital expenditure must immediately be forthcoming or rapid disintegration of the hospitals of Great Britain would occur.

9. Not only were state funds essential to the continued operation of hospitals but a fivefold increase in public money was needed for the medical schools. Accordingly the University Grants Committee increased its appropriations for medical schools on an accelerating scale.

10. The medical schools of Great Britain with but few exceptions were developed as subsidiaries of hospitals. Today all British medical schools have the status of faculties of universities, but in most schools, particularly in the London area, the hospital influence still is predominant.

11. In Great Britain medical students are selected for admission when they are 16 to 18 years of age and enter medical school at the average age of about 19. This makes selection an even more difficult task than it is for American medical schools, whose applicants have had three or four years of college work and average 20 to 21 years of age when they enter medical school. This difference in age on admission to medical school is due primarily to the fact that in Britain the premedical sciences of biology, chemistry and physics are considered part of the medical curriculum. This part of their program usually is concentrated into a single year.

12. Since the war the number of applicants for admission to medical schools has been several times the number of places available in medical school classes. This has made possible more critical selection and has resulted in upgrading the average ability of medical students.

13. Before the war approximately 20 per cent of medical students received financial aid. Now at least 80 per cent are receiving educational grants or scholarships, mostly from government sources. These grants are making it possible for able students to attend universities and professional schools without regard to the financial resources of their families. A problem of concern, however, is whether the government will be able and willing to provide a sufficient number of such grants to meet the needs of the future.

14. There is still no unanimity of judgment as to whether more physicians should be trained to meet the needs of the National Health Service. A few medical schools have increased enrolments, but with the closing of the extramural schools in Scotland and one undergraduate medical school in London the total number of medical students has not increased.

15. Most medical schools in Britain are urgently in need of improved facilities and equipment. Recently some new equipment has been obtained and minor building improvements made. Major construction, however, appears to be a long way in the future.

16. Teaching staffs of medical schools have been materially strengthened over the past several years as a result of budget increases provided by the University Grants Committee. The National Health Service made possible further strengthening of teaching staffs in clinical departments by providing salaries for clinicians in teaching hospitals.

17. Most medical schools are concerned over the recruitment of adequate numbers of able young teachers and scientists for the basic science departments. It is too early to know what effect, whether good or bad, the National Health Service will have on this shortage.

18. Few changes have been made in the medical curriculum in recent years in spite of the various studies, reports and recommendations that have been made concerning it. The National Health Service emphasizes the need for training for general practice, but this service is *not* providing conditions of practice which are professionally satisfying or challenging for the general physician. There is grave concern regarding the future of this most essential segment of medical practice.

19. The most pronounced characteristic which makes for rather sharp difference between clinical teaching in America and in Great Britain derives from the basic organization of the hospital services. In Britain hospital services are divided among a number of "firms," and these "firms" each control a small number of hospital beds, forming a complete unit: chief clinician, assistants, registrars and, when they exist, house officers. For clinical instruction students are assigned to these firms, which function autonomously and independently of each other and of the school as a whole.

20. This horizontal structure is not adapted to our concept of an academic department, and in the medical schools in which full time department heads have been appointed the professor's authority usually is limited. To one accustomed to the American system of department organization there seems to be lack of coordination and control, from the point of view of medical education. The number of full time professors has increased in response to the recommendations of the Goodenough report, but the position of these academic heads does not seem to be an enviable one.

21. The initial influence of the National Health Service Act seemed to favor improvement in the relationship between universities and their teaching hospitals. After eighteen months of operation, however, optimism is far from universal. Perhaps the worst that can be said at present is that in every medical school the cumbersome machinery of bureaucracy takes far too much of the time and the energy of important teachers and hospital medical staff members. There is grave fear in many places that the necessity to reduce the costs of the medical service will result in increasing the concentration of hospital service duties imposed on the clinical faculties to a degree not compatible with modern teaching and research in a medical school.

22. Licensure to practice medicine in Great Britain still is granted not only to those who hold university medical degrees but also to holders of diplomas of the Conjoint Examining Boards and holders of the diploma of the Society of Apothecaries. The medical schools feel that the extrauniversity examinations should be discontinued, but there seems little likelihood that this will be done in the immediate future.

23. Since the adoption of the National Health Service Act in 1948, the general practitioner no longer has hospital privileges, nor does he command the direct use of those ancillary departments which have become essential to good medical work: the clinical laboratory, x-ray facilities and so forth. He must confine his activities to home calls and office visits, now almost entirely under the capitation-fee system. The frustration within the field of general practice which was beginning to become apparent under the old panel system has been accelerated greatly by the regulations of the Act.

24. All medical care in hospitals and their outpatient dispensaries is conducted by specialist consultants and the registrars working under their supervision. The number of consultant posts to be approved for any hospital is determined by the hospital board under the authority of the state. The specialist, under the Act, is a salaried official paid by the Ministry of Health in so far as his hospital duties are concerned. He occupies an extremely favored position, and the gulf between the two sections of the medical profession is wide indeed. These two factors, the deterioration of the professional opportunities of the general practitioner and the privileged place of

the specialists, have resulted in an unprecedented desire on the part of the majority of medical students and young physicians to qualify as specialists.

25. Already the number of qualified consultants in the fields of general surgery and internal medicine has passed the number of positions which have been certified by the state, and we have been told that more than 500 young specialists in these two fields are without appointments.

26. Registrar training consists of at least six years of postgraduate experience in a special field of medicine. Registrars may be dropped from the training schedule during the first three years, but, after reaching the rank of senior registrar, the trainee has reasonable assurance that he will complete his preparation for specialist qualification. Registrars are appointed by the hospital boards, not by the medical schools. Their training is predominantly of a clinical nature. Library facilities in many hospitals are inadequate, and opportunities to participate in research are limited when compared with the existing facilities in the teaching hospitals of the United States.

27. Postgraduate training is made available to general practitioners at the expense of the Ministry of Health in the following ways:

(*a*) Trainee assistantships: These appointments permit young physicians to act as assistants to general practitioners and usually consist of an apprenticeship of one year. Their value varies tremendously.

(*b*) Half-day refresher courses are given, either in a university teaching hospital or as an extension course in a regional hospital. Such courses usually consist of demonstrations and conferences dealing with subjects of importance to the general practitioner. The courses usually are arranged into groups of eleven and twenty-two exercises made available during any year.

(*c*) Voluntary assistantships are available at many hospitals. A general practitioner may spend from one to three half-days each week, for a limited period, on a voluntary basis participating in the regular activities of any one of several departments. He has no responsibility for patient care.

(*d*) Intensive refresher courses: During 1948 a number of such intensive courses lasting two or three weeks were offered. Some of these were given in London, others in medical centers throughout the country.

Unfortunately, relatively few practitioners are taking advantage of these various opportunities for postgraduate training or continuation study, because they have no opportunity to practice medicine with any greater effectiveness after taking the course.

28. The National Health Service Act has taken from the Medical Officer of Health most of his duties of a clinical nature. This change and the fact that he has received little salary increase in recent years have combined to make his status so unattractive that few physicians now are in training for these positions and many health officers have resigned their posts and entered clinical practice during the past year and a half. The career of the trained full time physician in public health service is at present rather unattractive. The result is that he is fast disappearing in a nation where he is sorely needed.

29. The National Health Service Act proposed to develop health centers which would provide the best of facilities for general practice and would assist general practitioners to improve themselves professionally. Unfortunately, we had no opportunity to visit such centers, because none exists in active operation. Indeed, there is disagreement concerning the function of such centers and the nature and scope of the practice to be carried on in them. Some, in fact, believe the plan to be impracticable. At the present time, difficulties in construction hinder this development, but it is hoped that the situation will improve, because the health centers might broaden the opportunities of the general practitioner.

CONCLUSIONS

1. In Britain we had an opportunity to become acquainted with an old and honored system of medical education which has produced and is continuing to produce many not only good, but superb, clinicians. There is, however, considerable opinion among medical educators, including the Goodenough Committee, that certain aspects of this system should be modified in the light of modern scientific medical advances. Most of these areas of suggested change represent the major differences between the British and American systems of medical education.

2. Since the National Health Service Act has been in operation for only eighteen months, it is too early to permit more than a tentative evaluation of its impact on medical education. Furthermore, it must be remembered that a number of important factors other than the National Health Service, such as increasing costs, diminishing resources, wartime destruction and national socialism, have profoundly affected British medical education and medical practice over the past decade; also that British and American systems of medical education exhibit basic differences which make an objective opinion regarding the impact of the National Health Service especially difficult.

3. Certain effects of the National Health Service Act, however, already are becoming apparent. Some of these effects, particularly as they relate to the improved financial condition of the teaching hospitals, seem at present to be entirely beneficial. There are many who believe that these improved circumstances represent a gain that will be held. On the other hand, a significant number of serious and thoughtful persons fear that when the inevitable moves are made to reduce the excessive costs of the National Health Service the teaching hospitals, which are under the control of the Ministry of Health, will find their teaching and research activities seriously curtailed.

4. Although the developments in medicine which have occurred recently in Britain were revolutionary in nature, the medical schools were buffered against them by the immeasurably stabilizing influences of the University Grants Committee and its handmaiden, the Medical Research Council. These institutions, because of their prestige and their real power, have kept the medical schools free of political interference even though the largest part of their budgets now comes from the state. They were designed to channel large sums of monies into the universities while always protecting the academic prerogatives of the schools.

5. Undoubtedly one development in British medical education which causes great concern has been exaggerated by the National Health Service Act. That is that almost all students and recently graduated physicians want to become specialists. Even before the Act the lot of the general practitioner in Britain was not too happy, and today it is demoralizing. We do not refer to overwork but rather to the fact that he seems destined to a routine life which does not offer the necessary facilities to practice good medicine and which fails utterly to offer the professional incentives which lead to continued growth of the physician. Your committee has seen what happens when the division between specialist and general practitioner becomes decisive, and we most earnestly hope that American medical schools will carry forward the movement that has appeared since the war and will continue to develop superior hospital training designed to prepare physicians for the general practice of medicine on an ever enlarging scale. If we really believe that the general practitioner is the "backbone of medicine," then let us prepare him for the most difficult task in medicine. After our experience in England, we are confident that this is the most important job facing the medical schools of the United States during the next decade.

6. Finally, we would emphasize again the all-important social, economic and geographic background against which British socialism developed. The National Health Service Act is only one facet of British socialism; the welfare state does not exist except as a part of the whole. Furthermore, conditions in Great Britain are so different from those in the United States that it would be folly to contend that what may be necessary for Britain today should be admirable for transfer to the United States. We, fortunately, have the time that is necessary to evolve an adequate medical service for our people without resorting to the centralization of authority in a welfare state.

GOVERNMENT SERVICES

Army

Army Medical Interns in the Service

Over 75 per cent of the medical graduates who interned in Army hospitals under the Military Intern Training Program have remained in the Army longer than their legal requirement for active duty, according to figures released today by Major Gen. R. W. Bliss, the Army Surgeon General.

The postwar Military Intern Training Program started July 1, 1947. Since then three groups, totaling 311, have completed internship training in Army hospitals as officers commissioned in the Medical Corps Reserve. At the end of the training period, they could accept regular Army commissions, if tendered, and remain in the service. Otherwise, they could either remain on active duty under their reserve commissions or return to civilian life.

Of the 311 young physicians who have passed through the program, 235 have elected to remain on active duty in the Army Medical Service, either as regular or reserve officers. Of the other 76, several have requested return to active duty after a comparatively brief period of nonmilitary practice. All but seven of the 76 retained their reserve commission.

Each of the three groups showed approximately the same percentage of post-interns accepting prolonged military service. The first group, which started in 1947, numbered only 25, of whom 19 remained in uniform after completing their training. The 1948 group of 113 found 87 remaining on active duty at the end of the training year. Of the 173 doctors who ended their internships last month, 129 have decided to continue in the Army.

Tripler Army Hospital

Col. Charles L. Leedham has been appointed Chief of Medical Service at Tripler Army Hospital. Prior to his departure to Hawaii, he was Chief of Medical Service at Oliver General Hospital at Augusta, Ga., and professor of clinical medicine at the University of Georgia Medical School.

One Hundred and Seventy-Fifth Anniversary of Army Medical Department

On July 27 the U. S. Army Medical Department marked its one hundred and seventy-fifth anniversary. On July 27, 1775, on recommendation of General George Washington, the Continental Congress first approved of a plan for creation of a hospital which made reference to the entire medical organization, and not to just one specific institution. Included in the famous names of those that have been responsible for the remarkable advances in the U. S. Medical Department are William Beaumont, Surgeon Jonathan Letterman, Major Walter Reed, Surgeon General James Tilton, Surgeon General George M. Sternberg and Surgeon John S. Billings.

Contributions of the Army Medical Service over its 175 years of history include the writing of early American textbooks on surgery and pioneer work in the study of the digestive system and bacteriology. The conquest of yellow fever, development of the acrylic eye and important discoveries in the fields of animal diseases and disease transmitted from animals to man are also landmarks in the Service's history.

Penicillin, quinacrine hydrochloride, blood plasma and DDT owe much of their effectiveness to research and application by Army physicians and allied scientists during the recent war. Tantalum, a new substance for sutures and bone filler, is among important Army medical developments. Other advances have been made in the prevention and treatment of hepatitis and scrub typhus and in thoracic, nerve, orthopedic and heart surgery.

Navy

Louis Livingston Seaman Prize

Capt. C. C. Shaw (MC, USN), director, Research Division, Bureau of Medicine and Surgery, was awarded the Louis Livingston Seaman Prize by the Association of Military Surgeons for his article on "Dramamine Trials in the U. S. Navy," selected for its exceptional usefulness from among the articles published in *The Military Surgeon* during the past year.

The Seaman prize was established by Major Louis Livingston Seaman, late surgeon, 1st U. S. Volunteer Engineers, who offered a prize in 1900 for the best essay on an approved topic. In recent years the rules governing the awarding of the prize were altered to allow the prize to be awarded for articles of exceptional usefulness.

Navy Woman Physician

Lieut. Comdr. Bernice R. Walters (MC, USNR), first woman doctor ever assigned to duty aboard a Navy ship, is a member of the medical staff of the *USS Consolation*.

Dr. Walters, one of 31 women medical officers on active duty in the Navy, recently reported aboard the *Consolation* after being detached from duty at the naval hospital, Pensacola, Fla. She is medical officer in charge of the SOQ (Sick Officers Quarters) aboard the hospital ship.

Navy women doctors were originally commissioned in the Women's reserve (WAVES) in 1942. Since the first, Dr. Cornelia Jane Gaskill, of Peekskill, N. Y., was commissioned on Sept. 1, 1942, ninety-eight other women doctors have served in the Navy Medical Corps. Of the total, 80 now hold either regular or reserve commissions. Three of the 31 women doctors on active duty hold regular Navy commissions, and 28 are in the naval reserve. Another 49 reserve women physicians are on inactive duty.

Naval Medical School

Capt. Bartholomew W. Hogan (MC, USN) assumed command of the Naval Medical School, National Naval Medical Center, Bethesda, Md. Captain Hogan will become the twenty-second medical officer to command the school since its establishment in 1902.

Capt. J. L. Enyart (MC), who had been acting commanding officer for the past four months, will resume his duties as executive officer at the school.

Air Force

Air Force Outlines Program for Recall of Medical Service Personnel

The Air Force plans to recall only those reserve medical officers for whom a specific need and vacancy exists and will limit its medical recall program to prevent a drain on the medical specialists required for civilian health needs.

Other features of the program were designed to prevent "pooling" of medical officers and malassignment of these specialists in nonprofessional or staff duties.

The USAF directive to the Office of the Surgeon General stated, "All regular and reserve medical officers now in residency training in civilian hospitals and military institutions will be relieved from such training and assigned to duty prior to any involuntary recall of reserve officers.

"No pools of reserve medical officers will be formed, and no officers will be called to duty involuntarily until required to fill a specific vacancy."

Public Health Service

Fluoride Programs to Reduce Dental Decay

Two hundred and eighty-five communities in 30 states and the District of Columbia have established topical fluoride programs to reduce new dental decay. Some of the programs provide such services as dental inspections, fluoride applications, referral to family dentists, care for children whose parents cannot afford dental services, dental health education and follow-up services. Many communities have expanded their existing dental health programs to include fluoride applications.

Since the Nationwide Topical Fluoride Demonstration Program was launched by the U. S. Public Health Service in 1948, demonstrations, under the supervision of state health departments, have been conducted by its demonstration teams in 658 communities with the cooperation of state dental societies and community organizations. The demonstrations show how a 2 per cent solution of sodium fluoride should be applied to the teeth of children to effect a 40 per cent reduction in new dental decay and how community programs might operate on a mass treatment basis.

Census of Public Health Nurses

According to a census made Jan. 1, 1950, by the Public Health Service, 25,081 public health nurses were in public health work in 1950, which was 1,708 more than the number reported in 1949. The three states reporting the largest number of nurses in public health work are New York (3,572), Pennsylvania (2,184) and California (2,118). Fifteen states had some type of full time public health nursing service in every county and city. The 715 counties lacking public health nurses represent 23.2 per cent of all counties and are in sparsely populated areas in the majority of cases. The average population load per staff public health nurse throughout Continental United States, the territories and island possessions in 1950 was 6,769. This year 60 per cent of the 24,241 state and local public health nurses who reported on their qualifications had some academic preparation in public health nursing and more than 20 per cent of all the nurses had one or more college degrees.

Cancer Research Grants

Cancer research grants recently awarded by the National Cancer Institute included two for work on a method for fluoroscopic examination for the early detection of stomach cancer and four grants for studies of the host-tumor relation. The total amount of the grants is more than $90,000. The recipients are at Johns Hopkins University, Roscoe B. Jackson Memorial Laboratory, University of Michigan, University of Texas and University of Vermont.

Two Courses in Radiologic Health Training

Two courses in radiologic health training will be given at the Environmental Health Center of the Public Health Service at 1014 Broadway, Cincinnati, October 9-20 and November 6-17. Instruction will be in the basic theory of radiation and radiation-detecting instruments, the use of instruments for measuring radiation and protection against radiation hazards. About half the time will be devoted to laboratory work and practical exercises. The courses are primarily for employees of federal, state and local government units concerned with radiologic health activities; also eligible are other professional persons who are primarily concerned with radiologic health problems. Requirements are experience in public health work and a degree in medicine, engineering, physical science or biologic science. No tuition charge or laboratory fee will be required, but travel and living expenses must be paid by the applicant or his employer. Applicants must give a brief outline of their education and experience and should include a recommendation for attending the course by their superior officer or employer. Applications should be made prior to Sept. 5, 1950, to the Officer in Charge, Environmental Health Center, 1014 Broadway, Cincinnati 2.

National Advisory Mental Health Council

Two new members have been appointed to the National Advisory Mental Health Council. They are Dr. Henry W. Woltman, chief of the Neurology Section of the Mayo Clinic, and Miss Mildred C. Scoville, executive associate of the Commonwealth Fund, New York City. They succeed Dr. Karl M. Bowman and Dr. Allan Gregg, whose terms on the council have expired.

Philippine Physicians in United States

Four physicians and one nurse from the Philippines are in the United States for four months of training under programs supervised by the Division of International Health. The training is being conducted under a fellowship plan established under the Philippine Rehabilitation Act.

The trainees, affiliation and field of study are:

Dr. Saturnino Ador-Dionisio, Assistant to the Director of the Philippine General Hospital and Acting Chief of Clinics, San Juan, Rizal—hospital administration and related fields.
Dr. Florencio Firme, District Health Officer, Pampanga Province, Bureau of Health—rural public health programs.
Dr. Mariano C. Icasiano, City Health Officer, Manila—public health administration.
Mrs. Vincenta C. Ponce, Chief Nurse, City Health Department, Manila—public health nursing and public health administration.
Dr. Jose R. Reyes, Superintendent, North General Hospital, Manila—hospital administration.

North General Hospital, of which Dr. Reyes is superintendent, is constructing a three million peso ($1,500,000) building on a new site in Mesa Heights, Manila.

Veterans Administration

Hospital Appointments

The Veterans Administration announced the appointment of managers and chiefs of professional services for three new hospitals now under construction in Clarksburg, W. Va.; Erie, Pa., and Poplar Bluff, Mo. The hospitals are scheduled to open either late this year or early in 1951.

Manager and chief of professional services of the 200 bed Clarksburg hospital will be Dr. Bernard L. Allen, chief medical officer and chief of professional services at the VA center in Togus, Maine, since November 1946. Dr. William J. McCarty, formerly manager of two VA hospitals, will head the 200 bed Poplar Bluff, Mo., hospital. He also will be chief of professional services. Dr. Harrison S. Collisi, present manager of the VA hospital in Cleveland, Ohio, has been reassigned as manager and chief of professional services of the new 200 bed Erie hospital, effective December 1950.

The Veterans Administration has announced that Dr. Meyer H. Fineberg, who has been serving as acting manager of the VA hospital at Dwight, Ill., since March 30, has been appointed manager of the institution. The appointment became effective July 9, 1950. Dr. James S. Glotfelty, chief of neuropsychiatry for eight Midwestern and Southwestern states, has been appointed manager of the VA hospital at Lebanon, Pa.

Miscellaneous

Research and Development Board

Appointment of Dr. Joseph M. Pisani as executive director of the Committee on Medical Sciences, Research and Development Board, Department of Defense, has been announced by Dr. Francis G. Blake, chairman of the committee. Dr. Pisani succeeds Dr. James E. McCormack, who will become associate dean of the Postgraduate Medical School, New York University.

Dr. Pisani has served as deputy executive director of the committee since September 1949. Prior to that date he was assistant chief of the Chest Service of the Veterans Administration Hospital, Bronx, N. Y.

Dr. Thomas B. Spencer, who has been conducting a private practice in internal medicine in Rochester, N. Y., will succeed Dr. Pisani as deputy executive director.

MEDICAL NEWS

(Physicians will confer a favor by sending for this department items of news of general interest: such as relate to society activities, new hospitals, education and public health. Programs should be received at least two weeks before the date of meeting.)

ARIZONA

Public Health Appointment.—Dr. Clarence G. Salsbury, who has worked extensively among the Navajo Indians of Arizona will join the state department of health September 1 as chief of the Bureau of Preventive Medicine Services. He will supervise operations of the Divisions of Tuberculosis Control, Venereal Disease Control, Maternal and Child Health, Acute Communicable Diseases and Cancer and Heart Disease Control. He is a veteran of 23 years' service on the Navajo Indian Reservation, where he served as superintendent of Ganado Mission and the Sage Memorial Hospital at Ganado. His resignation from the Indian Service was submitted last May.

CONNECTICUT

Personals.—Philip B. Cowles, Ph.D., associate professor of immunology at Yale University School of Medicine, New Haven, was recently elected to the National Board of Medical Examiners to fill the unexpired term of Dr. William M. Hale, which extends until the annual meeting of 1954. Dr. Cowles has supervision of the National Board of Medical Examiners' written examination in bacteriology at Yale University.——Dr. Sterling P. Taylor, New Haven health officer, was elected president of the Connecticut Public Health Association at its May meeting. ——Dr. Edward A. Keenleyside, Hartford, a former resident physician at Toronto General Hospital, became medical officer of the new Canadian head office of the Prudential Insurance Company July 24. Dr. Keenleyside has been associate medical director of the Connecticut General Life Insurance Company for the last three years and a member of the medical department for 17 years.

Annual Clinical Congress.—The twenty-fifth Annual Clinical Congress of the Connecticut State Medical Society and the Yale University School of Medicine will be held in New Haven September 12-14. Morning sessions are to meet in the auditorium of the Law School. Afternoon sessions will be largely panel discussions. Visiting speakers at the morning sessions include:

William B. Kennedy, Philadelphia, Modern Technics for the Diagnosis of Cancer.
Frank Glenn, New York, Surgical Treatment of Acute Cholecystitis.
Robert L. Bennett Jr., Warm Springs, Ga., Convalescent Care in Poliomyelitis.
Harris Isbell, Lexington, Ky., Chronic Barbiturate Intoxication.
Paul R. Hawley, Chicago, Whither Medicine?
M. Edward Davis, Chicago, Management of Prolonged Labor.
Abraham Z. Barhash, Newark, N. J., Psychiatric Treatments in Medical Practice.
Edwin C. Hamblen, Durham, N. C., Endocrinology and Treatment of the Functional Excesses of Uterine Bleeding.
Willard O. Thompson, Chicago, Uses and Misuses of Sex Hormones.
Charles A. Janeway, Boston, Nephrosis in Childhood.
Claude E. Welch, Boston, Surgical Treatment of Gastric and Duodenal Ulcer.
John H. Foulger, Wilmington, Del., Dynamics of the Circulation Under Stress.
Walter L. Palmer, Chicago, Clinical Manifestations of Extrahepatic Biliary Tract Disease.
Chester S. Keefer, Boston, Fever of Unknown Origin.
Irving W. Wright, New York, Neurovascular Syndromes of the Upper Extremity.

Dr. Elmer L. Henderson, President of the American Medical Association, will be the guest of honor and speaker at the dinner Wednesday evening at 7:00. His topic will be "American Medicine in the Political Scene."

DELAWARE

Open Epileptic Clinic.—As part of the service offered by the Seizure Control Unit (Epileptic) of the Governor Bacon Health Center, Delaware City, an outpatient clinic service on the grounds of the center is now available from 1:15 to 3:15 p. m. every Wednesday, by appointment. A graduated fee will be requested of those who can pay; service will be given gratis to the indigent. Dr. Joseph Hughes of Philadelphia maintains over-all supervision of the unit.

GEORGIA

Dr. O'Rear Heads Pediatric Department.—Dr. Harry B. O'Rear, Durham, N. C., has been named professor and head of pediatrics at the Medical College of Georgia, Augusta. He will fill the vacancy created by the death of Dr. Claude M. Burpee in 1944. Dr. O'Rear is a graduate of the University of Pennsylvania School of Medicine, Philadelphia (1943), and has just finished a residency at Duke Hospital.

KANSAS

Young Physicians Remain in Kansas.—Dr. Oscar W. Davidson, secretary of the State Board of Medical Registration and Examination, has announced that 120 new physicians have been licensed to practice in Kansas. Eighty-eight new doctors took the written examinations in June, 34 from out of state received licenses to practice by reciprocity and five more reciprocity applications have been approved. Of the total 127, only one will practice outside the state. He is going to the Belgian Congo in Africa. It is believed that the experience the students are getting under the proctorship program inaugurated by the University of Kansas Medical Center is encouraging young physicians to settle in smaller communities. Several small communities will have their first resident physicians. This is the second year of the rural health program in Kansas.

KENTUCKY

Personals.—Dr. Thomas A. Frazer and Dr. Oliver C. Cook were honored at a banquet sponsored by the Marion Business and Professional Women's Club July 14. Dr. Frazer has been practicing medicine in Marion 50 years and Dr. Cook for 51 years in Crittenden County, 37 of which have been spent in Marion. The Marion Kiwanis Club honored Dr. Frazer at a meeting July 6.

Heart Clinic Opened.—The first heart clinic for children in Kentucky was opened in Louisville July 6 by the state department of health. Any child in the state through the age of 15 may be referred to the clinic by a physician for treatment of heart disease or follow-up care for rheumatic fever. The new clinic is to be used as a teaching facility for students of the University of Louisville School of Medicine. Dr. Joseph A. Little, who is assistant professor of pediatrics at the University of Louisville and consultant to the Division of Maternal and Child Health for the state, is medical director of the clinic. Medical coordinators are Dr. Robert F. Hansen, director of the Bureau of Preventive Medical Services, and Cathryn R. Handleman, director of the Division of Maternal and Child Welfare, both of the state department of health. The consulting cardiologist is Dr. Herbert L. Clay Jr., assistant clinical professor of medicine at the university. Drs. Morris M. Weiss, Woodford B. Troutman and Margaret A. Limper, all of the medical school staff, compose the medical advisory council.

MARYLAND

State Medical Research Society.—A representative group of laymen, practicing physicians and medical scientists have formed the Maryland Society for Medical Research. A nonprofit corporation chartered under the state laws, its principal purpose is to encourage and advance research in biology, medicine, dentistry, pharmacy and veterinary medicine. Anyone who wishes to join the society may do so by sending membership dues to the secretary, D. C. Smith, 522 W. Lombard Street, Baltimore 1. Three types of membership are available: active, $1; sustaining, $5 and life, $100.

MASSACHUSETTS

University Appointment.—Dr. Ralph H. Adams, superintendent at Good Samaritan Hospital, Woodbury, Tenn., has accepted a position as professor of clinical surgery at Boston University School of Medicine and as senior surgeon at Massachusetts Memorial Hospital. He is a graduate of Harvard Medical School, Boston (1933). After his internship he was an assistant surgeon at Massachusetts General Hospital and surgeon at the Lahey Clinic, New England Baptist Hospital and the New England Deaconess Hospital, all in Boston. From 1937 to 1941 he was assistant in surgery at Harvard University.

MICHIGAN

Drs. Rights and Gardner Head Departments at Wayne.—The department of bacteriology and clinical pathology at Wayne University College of Medicine, Detroit, has been reorganized during the past two years, with clinical pathology being incorporated in the department of pathology and bacteriology having been expanded into a department of microbiology with an adequate undergraduate curriculum and facilities for graduate study and research. Fred L. Rights, Ph.D., has been appointed professor of microbiology and chairman of the department.

Dr. Rights came to Detroit from Chapel Hill, N. C., where he has been associate professor of bacteriology at the University of North Carolina School of Medicine. He has done research in bacteriology at Columbia University. Dr. Rights served in the army for three years during World War II with the rank of lieutenant, working on vaccines.

Dr. Ernest D. Gardner has been named professor of anatomy and head of the department at the college of medicine. A graduate of the University of Washington, Seattle, he received his M.D. degree from Stanford University School of Medicine, Stanford-San Francisco, in 1941. He has served on the faculty in the department of anatomy at Stanford University, Washington University School of Medicine, St. Louis, and just prior to coming to Wayne in 1945, was assistant professor of the department of anatomy at the University of Southern California School of Medicine, Los Angeles.

MINNESOTA

State Medical Election.—At the annual meeting of the Minnesota State Medical Association in June the following officers were elected for 1951: Drs. Frank J. Elias, Duluth, president; John F. Norman, Crookston, president-elect; Benjamin B. Souster, St. Paul, reelected secretary, and William H. Condit, Minneapolis, reelected treasurer.

Mayo Memorial Medical Center.—Construction is under way on the new 22 story, $12,000,000 Mayo Medical Center at the University of Minnesota, Minneapolis. The center, which will serve as a memorial to the late Drs. William J. and Charles H. Mayo of Rochester, will house medical research laboratories, medical classrooms, quarters for research animals, medical school and staff offices, operating rooms, hospital rooms, the medical library, three auditoriums and an underground garage. It will be located in the university's medical quadrangle. Groundbreaking ceremonies for the building were held July 5. The principal speaker was Donald J. Cowling, LL.D., chairman of the Committee of Founders of the Mayo Memorial created by the 1943 Minnesota Legislature. Dr. Harold S. Diehl, dean of medical sciences at the university, presided. Funds for the building's construction have come from private donors, federal government agencies, appropriations by the state legislature and from various nongovernmental medical research foundations and agencies.

MISSOURI

Personals.—Dr. Robert E. Shank, head of the department of preventive medicine and public health at Washington University School of Medicine, St. Louis, has been appointed to membership on the Food and Nutrition Board of the National Research Council. He will serve a one year term. A native of St. Louis, Dr. Shank has been a member of the university staff since 1948.——Over 1,500 persons gathered at the American Legion Park in Marthasville June 13 to honor Dr. Herbert H. Schmidt for his 25 years of service as physician in the city. Anniversary gifts were presented to both Dr. Schmidt and his wife after a two hour program.

Dr. Hanlon to Direct Department of Surgery.—Dr. C. Rollins Hanlon has been appointed director of the department of surgery at the St. Louis University School of Medicine. Dr. Hanlon's appointment marks the first time a full time head of the department of surgery has served at the school. He will assume his duties the second week in September, succeeding Dr. John W. Stewart, who has headed the department on a part time basis, following the late Dr. William T. Coughlin. Dr. Hanlon was assistant professor of surgery at Johns Hopkins University School of Medicine, Baltimore, until July, having served in that department since 1946, after his release from the U. S. Navy.

NEW MEXICO

Hospital News.—Ground-breaking ceremonies were held in July for the new Presbyterian hospital addition in Albuquerque. The Ruth Hanna Memorial Wing will provide 60 additional beds and 30 bassinets. It will be a memorial to the late wife of Albert G. Simms, Albuquerque, who contributed $200,000 toward its construction.

County Community Hospital.—Citizens of Lea County are to have their Community Hospital now under construction at the cost of $1,035,000 on a site donated by a group of citizens. The hospital contains 80 adult beds and 26 bassinets, 4 infant incubators, 10 cribs and 8 isolation beds. The design embodies wide separation of patient rooms in wings radiating from a core of service and diagnostic facilities. Additional wings can be built without disturbing the function of the hospital. Three principal patient wings house surgical, obstetric and medical cases. A separate wing on the second floor will contain the isolation room for infectious and contagious diseases. There are six operating rooms.

NEW YORK

Personals.—Dr. Oswald A. Kilpatrick, director of Rochester State Hospital, has been appointed senior director of Hudson River State Hospital, Poughkeepsie. He replaces Dr. Wirt C. Groom, assistant director since the retirement in 1946 of Dr. John R. Ross. The appointment is effective August 1.——Dr. Joseph V. DePorte of New Lebanon Center, director of the state health department Office of Vital Statistics for the past 25 years, has been honored by the French government for his work in the field of vital statistics and population studies. Dr. DePorte has been notified that he has been made a commander of the National French Order of Public Health and has received from the French government a scroll and gold medallion.

Regional Hospital Plan Expanded.—A grant of $24,500 from the New York State Health Department will enable the University of Buffalo School of Medicine to expand its regional hospital plan in six counties in Western New York. Through this program the university is able to bring the latest advances in medicine to practicing physicians and surgeons. The grant for expansion of this project is expected to be annual. About 1,700 physicians in the counties of Niagara, Erie, Genesee, Wyoming, Chattaraugus and Chautauqua will be able to take advantage of this planned program of postgraduate medical education. The program, originated by the medical school two years ago, provides for the conduct of clinics and conferences by university faculty members at the community hospitals and for the assignment of residents from affiliated hospitals in Buffalo to the community hospitals requesting them. The grant will make possible the appointment of a full time director of postgraduate education in the medical school. Five hospitals now are associated with the university in the regional program: Wyoming County Community Hospital in Warsaw, Genesee Memorial in Batavia, Mount St. Mary's in Niagara Falls, Olean General in Olean, and Brooks Memorial in Dunkirk. Three more have applied for inclusion in the program: Niagara Falls Memorial, Tri-County Memorial Hospital in Gowanda and Jamestown General. Cooperating in the program are four Buffalo hospitals affiliated with the medical school, Buffalo General, Millard Fillmore, Children's and Edward J. Meyer Memorial. Dr. Abraham H. Aaron is head of the medical school's postgraduate department.

New York City

First Harvey Lecture.—Dr. William T. Astbury, professor of biomolecular structure, University of Leeds, England, will deliver the first Harvey Lecture of the current series at the New York Academy of Medicine on September 28. Dr. Astbury will speak on "Adventures in Molecular Biology."

Collins Foundation.—Dr. Joseph Collins, a neurologist who died June 11, left his residuary estate for the establishment of the Joseph Collins Foundation. Dr. Collins suggested that annual awards of $1,500 each be made to "serious and cultured young men and women who are ambitious and determined and who are without sufficient means to study medicine." They may be students at the medical schools of Cornell, Johns Hopkins, Harvard, Columbia or the University of Virginia.

Dr. De Voe Heads Eye Program.—Dr. Arthur G. De Voe has been appointed professor and chairman of the department of ophthalmology, New York University Post-Graduate Medical School, a unit of the New York University-Bellevue Medical Center. He will be in charge of all ophthalmologic teaching, research and patient care at the center. Dr. De Voe for the past ten years has been a member of the staff of the Institute of Ophthalmology, Presbyterian Hospital. He served in the medical corps of the U. S. Army during World War II and was discharged with the rank of major. Since 1946 he has been senior consultant at the U. S. Veterans Administration Hospital, the Bronx. He was graduated from Columbia University with the degree of Doctor of Medical Science in 1940 and from Cornell University Medical School as an M.D. in 1935.

Open Diagnostic Center.—The New York City Department of Health has opened a diagnostic service center at 303 Ninth Avenue in Manhattan to provide practitioners with diagnostic facilities of a high quality for patients who cannot afford such service at private rates. To make certain that the diagnostic service reaches those for whom it is intended, the standards of economic eligibility used by the New York City Department of Hospitals are applied for every applicant. Only persons living in New York City, whose income is too low for them to afford to pay for such service, are eligible for admission. Patients are accepted only when referred by their private physicians. On completion of the diagnostic study a summary of the findings is sent to the referring physicians to whom the patient is returned for necessary treatment. The center is for ambulatory patients only and has no treatment function.

OKLAHOMA

New State Association Offices.—The Oklahoma State Medical Association and the *Journal of the Oklahoma State Medical Association* announce their removal from 210 Plaza Court, Oklahoma City 3, to 1227 Classen, Oklahoma City 3, effective July 31.

Symposiums on Gynecologic Cancer.—Three nationally known lecturers will conduct the symposiums on gynecologic cancer to be sponsored by the Oklahoma State Medical Association and the Oklahoma State Department of Health, according to Dr. Gregory E. Stanbro, Oklahoma City, chairman, Professional Education Committee of the American Cancer Society, Oklahoma Division. On September 25 the symposium will be held in Lawton and Ada, on September 26 in Oklahoma City and Durant, on September 27 in Clinton and McAlester, on September 28, Woodward and Muskogee and on September 29 in Enid and Tulsa.

PENNSYLVANIA

Faculty Promotions.—The Women's Medical College of Philadelphia has promoted the following persons to clinical associate professors of their respective departments: Drs. Elizabeth S. Waugh, gynecology; William I. Gefter, medicine; Alma D. Morani, surgery, and Frank H. Murray, proctology in the department of surgery. Promoted to clinical assistant professorships were Drs. Maurice Sones, in medicine, and Evelyn E. Miller, in pediatrics. Dr. Pauline Coonel was promoted to assistant professor in the department of otolaryngology and bronchoesophagology.

Course in Advances in Medicine.—The Graduate School of Medicine of the University of Pennsylvania announces the establishment of a new course on Current Advances in Medicine and Surgery. It will be given annually, the first session to be September 25-29. The tuition fee will be $100 to physicians in general; alumni of the Graduate School of Medicine are exempt and pay only a registration fee of $10. All fees are payable on application. Full information and application forms may be obtained through the Office of the Dean, Graduate School of Medicine, University of Pennsylvania, Philadelphia 4.

Dr. Shorr Wins Alvarenga Prize.—On July 14 the College of Physicians of Philadelphia awarded the Alvarenga Prize for 1950 to Dr. Ephraim Shorr, associate professor of medicine, Cornell University Medical College, New York, for his outstanding work in shock, which has provided a clearer understanding of the mechanism of this important condition. The Alvarenga Prize was established by the will of Pedro Francesco DaCosta Alvarenga of Lisbon, Portugal, an associate fellow of the College of Physicians of Philadelphia, to be awarded annually by the college on the anniversary of the death of the testator July 14, 1883.

WASHINGTON

State Medical Meeting in Spokane.—The Washington State Medical Association will hold its annual meeting September 10-13 at the Davenport Hotel in Spokane under the presidency of Dr. Donald G. Corbett, Spokane. Guest speakers will be Governor Arthur B. Langlie, Olympia; Dr. Raymond B. Allen, president of the University of Washington, Seattle; Dr. Charles B. Puestow, Chicago; Dr. Rufus B. Robins, Camden, Ark.; Dr. George F. Lull, Secretary and General Manager, American Medical Association, Chicago; Dr. Robert H. Williams, head of the department of medicine, University of Washington, Seattle; Joseph A. Sweeney, LL.D., Seattle, secretary to the Armed Forces Advisory Committee, and Dr. William B. Castle, professor of medicine, Harvard Medical School, Boston. Technical exhibits will be shown. The annual banquet will be held Tuesday evening at 6:30 p. m. A public broadcast, "Hall of Health," will be made at 8:00 p. m. Wednesday, participants being Drs. Allen and Robins. The Women's Auxiliary will meet in conjunction with the association.

WISCONSIN

Postgraduate Clinic.—The Jackson Clinic, Madison, will hold its annual postgraduate clinic September 30, the day of the Marquette-Wisconsin football game. Members of the staff of each institution will present the program.

Robert A. Straughn, Madison, Management of the Irritable Colon.
Arnold S. Jackson, Madison, Tumors and Cysts of the Neck.
Max J. Fox, Milwaukee, Uncommon Portals of Entry in Poliomyelitis.
Robert E. McDonald, Milwaukee, Management of Prolonged Labor.
Arthur A. Schaefer, Milwaukee, Surgical Emergencies in Children.
James A. Jackson and John R. Steeper, Madison, Excision of Giant Panniculus Adiposus.

After a discussion period there will be a luncheon at the Loraine Hotel for doctors and their wives at 11:50 a. m.

GENERAL

Society Elections.—At the June meeting of the American College of Radiology Dr. C. Edgar Virden, Kansas City, Mo., was elected president and Dr. Earl E. Barth, Chicago, vice president.——At the 1950 meeting of the American Association of Genito-Urinary Surgeons the following officers were elected: Dr. Roger C. Graves, Boston, president; Dr. Charles C. Higgins, Cleveland, vice president, and Dr. Norris J. Heckel, Chicago, secretary-treasurer.

New Editor of Journal of Allergy.—Dr. Harry L. Alexander, editor of the *Journal of Allergy* since its establishment in 1929, retired with the July issue of the journal. Dr. Alexander was presented a commemorative scroll at the annual meeting of the American Academy of Allergy. He is also clinical professor of medicine at Washington University School of Medicine, St. Louis. Dr. William B. Sherman, as associate in medicine at the Columbia University College of Physicians and Surgeons, New York, and a member of the staff of Presbyterian and Roosevelt hospitals, has assumed the duties of editor.

Obstetrics and Gynecology Meeting.—The Central Association of Obstetricians and Gynecologists will hold its annual meeting in the Crystal Ballroom of the Schroeder Hotel, Milwaukee, Wis., September 21-23, under the presidency of Dr. Lawrence M. Randall, Rochester, Minn. The guest speaker will be Dr. F. Bayard Carter, professor of obstetrics and gynecology, Duke University, Durham, N. C., whose subject will be "Obstetric Deaths." The annual prize award paper will be given by Dr. Harry L. Stewart Jr., Detroit, on "Hormone Secretion by Human Placenta Grown in the Eyes of Rabbits." The annual banquet will be held Friday evening at 7 o'clock.

Joint Commission Meeting.—The Joint Commission for the Improvement of Care of the Patient will meet at the Statler Hotel, New York, September 8-9. The commission is composed of representatives of the American Medical Association, the American Nurses Association, the National Organization of Public Health Nurses and the American Hospital Association. Representatives of the National Federation of Licensed Practical Nurses and the American Dietetic Association will also be present. Nursing education and service plans for its improvement made by the National Committee for the Improvement of Nursing Service, prepayment plans for nursing, diet therapy, significance of the American Medical Association Report of the Committee on Hospitals and Practice of Medicine and the use of private patients in the teaching of interns are among the subjects under discussion.

Joint State Medical Meeting.—The New Hampshire Medical Society and the Vermont State Medical Society will hold their annual meetings jointly at the Mt. Washington Hotel, Bretton Woods, N. H., September 9-12. The New Hampshire Heart Association will present its scientific program on Sunday and on Monday section meetings in pediatrics, neurology, obstetrics and gynecology, anesthesiology, dermatology, orthopedics and internal medicine and surgery will be held. Visiting speakers at the general sessions beginning Monday afternoon include:

William V. Cone, Montreal, Canada, Protection of the Patient.
Robert R. Linton, Brookline, Mass., Surgical Treatment of Chronic Ulcerations of the Lower Extremities.
Marion W. Ropes, Boston, Present Status of Treatment of Arthritis.
Howard Rusk, New York, Physical Medicine and Rehabilitation.
Donald S. King, Boston, Chronic Cough.
Allen O. Whipple, New York, Radical Surgery in the Treatment of Cancer.

The banquet will be held Monday evening at 7:30. Major General Paul R. Hawley, Chicago, will be the guest speaker.

Meetings of the Mississippi Valley Medical Societies.—The annual meeting of the Mississippi Valley Medical Society will be held at the Elks Club, Springfield, Ill., September 27-29, under the presidency of Dr. Nathaniel G. Alcock of Iowa City. Over 30 clinical teachers from leading medical schools will conduct a postgraduate assembly, the entire program of which is planned to appeal to the general practitioner. Over 50 scientific and technical exhibits and noon round-table luncheons are scheduled. No registration fee will be charged. Physicians are cordially invited to attend.

The American Medical Writers' Association will meet at the Elks Club September 27. In the afternoon there will be papers by Chicagoans, Frank G. Dickinson, Ph.D., director of the Bureau of Medical Economic Research, American Medical Association, and Dr. Theodore R. Van Dellen, medical editor, Chicago Tribune. In the evening Dr. Walter C. Alvarez, Rochester, Minn., editor of *GP*, will speak. A stag entertainment conducted by the Sangamon County Medical Society will follow. Programs for both meetings may be secured from the secretary, Harold Swanberg, M.D., 209-224 W. C. U. Building, Quincy, Ill.

Rheumatic Fever Council Appointments.—Dr. T. Duckett Jones, medical director of the Helen Hay Whitney Foundation, New York, has been elected chairman of the American Council on Rheumatic Fever of the American Heart Association. Dr. Arthur C. DeGraff, Samuel A. Brown professor of therapeutics, New York University College of Medicine, was chosen vice chairman. Dr. Rustin McIntosh, New York, former chairman of the council, was elected to the executive committee, along with Drs. Francis F. Schwentker, Baltimore; Hugh McCulloch, Chicago, and George M. Wheatley, New York. Dr. Jones is a member of the board of directors of both the American and New York Heart associations, and was formerly director of research at the House of the Good Samaritan, Boston. He is also chairman of the subcommittee on Rheumatic Fever, U. S. Children's Bureau, and of the Advisory Committee on Heart Disease Control Programs, Heart Disease Control Branch, Division of Chronic Diseases, U. S. Public Health Service, and a member of the National Advisory Heart Council of the National Heart Institute. The purpose of the American Council on Rheumatic Fever is to facilitate the study, prevention and treatment of rheumatic fever and rheumatic heart disease. Membership of the council is composed of representatives of 12 national voluntary agncies concerned with work in the field of rheumatic fever.

GENERAL

Prevalence of Poliomyelitis.—Reports of cases of poliomyelitis for the periods indicated have been received from the National Office of Vital Statistics, U. S. Public Health Service.

	Week Ended		Total*		5-Year
	Aug. 12, 1950	Aug. 13, 1949	1950	1949	Median, 1945-1949
United States Total	1,442	3,153	7,610	12,963	6,558
New England States:					
Maine	5	56	18	140	6
New Hampshire	..	24	3	42	10
Vermont	2	3	6	14	6
Massachusetts	27	139	64	354	43
Rhode Island	1	7	9	21	3
Connecticut	29	45	72	123	39
Middle Atlantic States:					
New York	172	539	584	1,381	278
New Jersey	30	101	163	279	168
Pennsylvania	45	41	182	125	123
East North Central States:					
Ohio	25	134	178	383	165
Indiana	22	126	70	486	64
Illinois	69	219	329	882	223
Michigan	66	222	240	669	120
Wisconsin	20	84	106	242	84
West North Central States:					
Minnesota	34	142	91	553	203
Iowa	72	81	309	389	162
Missouri	14	123	93	587	68
North Dakota	8	58	11	183	26
South Dakota	12	16	28	94	56
Nebraska	25	36	126	151	148
Kansas	21	56	111	281	79
South Atlantic States:					
Delaware	2	4	0	16	12
Maryland	29	7	59	39	19
District of Columbia	15	8	65	24	24
Virginia	94	26	413	98	98
West Virginia	18	39	96	149	20
North Carolina	51	14	196	97	43
South Carolina	24	12	217	40	40
Georgia	17	11	98	81	65
Florida	17	25	114	103	103
East South Central States:					
Kentucky	33	33	215	210	48
Tennessee	38	26	181	225	129
Alabama	18	13	129	119	88
Mississippi	23	23	156	166	61
West South Central States:					
Arkansas	15	50	125	598	67
Louisiana	30	29	156	117	55
Oklahoma	39	92	247	681	164
Texas	131	109	1,402	1,342	553
Mountain States:					
Montana	..	5	10	29	15
Idaho	2	44	24	190	28
Wyoming	2	13	21	38	35
Colorado	7	50	52	158	31
New Mexico	3	11	34	70	32
Arizona	7	18	44	51	35
Utah	2	..	13	52	27
Nevada	..	..	1	10	2
Pacific States:					
Washington	20	38	77	136	73
Oregon	23	6	74	59	31
California	83	106	500	724	439

* Beginning with the 12th week of each year.

CANADA

Research Council Fellowships.—Twenty-six medical fellowships, including 11 renewals, have been awarded for postgraduate work in 1950-1951 by the National Research Council of Canada. Individual values range from $1,500 to $2,500 for junior and from $4,000 to $4,500 for senior research fellows. The total value amounts to $60,600 exclusive of travel allowances. The grantees represent nine different universities, including one in the United States and one in China. They will work in 10 research institutions, six of which are located in Canada, two in the United States and two in England.

LATIN AMERICA

Carribean Rabies Conference.—To provide health authorities of the Caribbean islands an opportunity to discuss rabies control, the Pan American Sanitary Bureau, Regional Office of the World Health Organization, is organizing the Caribbean Rabies Conference, to be held at Kingston, Jamaica, August 28-30, 1950. It is expected that participants will attend from Cuba, Dominican Republic, Haiti, Puerto Rico, Guadeloupe, Martini, the Bahamas, Barbados, Jamaica, Leeward Island, Windward Island, Trinidad and the Virgin Islands. The conference is important at this time in view of the recent outbreak of rabies in Puerto Rico. Benjamin D. Blood, D.V.M., Washington, D. C., chief of the Veterinary Public Health Section of the bureau, will be in charge.

Medical Examinations and Licensure

COMING EXAMINATIONS AND MEETINGS

EXAMINING BOARDS IN SPECIALTIES

AMERICAN BOARD OF ANESTHESIOLOGY: *Oral.* Chicago, Oct. 8-11. Sec., Dr. Curtiss B. Hickcox, 745 Fifth Ave., New York 22.

AMERICAN BOARD OF DERMATOLOGY AND SYPHILOGY: *Written.* Various locations, Sept. 14. *Oral.* Detroit, Oct. 20-22. Sec., Dr. George M. Lewis, 66 East 66th St., New York 21.

AMERICAN BOARD OF INTERNAL MEDICINE: *Written.* Oct. 16. Asst. Sec., Dr. William A. Werrell, 1 West Main Street, Madison 3, Wis.

AMERICAN BOARD OF NEUROLOGICAL SURGERY: Chicago, Oct. 20-21, 1950. Applications no longer accepted. Sec., Dr. W. J. German, 789 Howard Ave., New Haven, Conn.

AMERICAN BOARD OF INTERNAL MEDICINE: *Oral, including sub-specialties,* Oct. 26-28. Final date for filing application was August 19. *Oral, including sub-specialties,* Dec. 7-9. Executive Secretary-Treasurer, Dr. William A. Werrell, 1 West Main St., Madison 3.

AMERICAN BOARD OF OPHTHALMOLOGY: *Written.* Various Centers, Jan. 5-6, 1951. *Oral.* Chicago, Oct. 2-6; San Francisco, March 11-15; New York, May 31-June 4; Chicago, October 1951. Sec., Dr. Edwin B. Dunphy, 56 Ivie Road, Cape Cottage, Maine.

AMERICAN BOARD OF ORTHOPAEDIC SURGERY: *Part II.* Chicago, Jan. 25-26. Final date for filing applications is Aug. 15, 1950. Sec., Dr. Harold A. Sofield, 122 South Michigan Avenue, Chicago 3.

AMERICAN BOARD OF OTOLARYNGOLOGY: Chicago, Oct. 3-6, Jan. 8-11, 1951. Sec., Dr. Dean M. Lierle, University Hospital, Iowa City.

AMERICAN BOARD OF PATHOLOGY: St. Louis, Oct. 13-14. Sec., Dr. Robert R. Moore, 507 Euclid Ave., St. Louis 10.

AMERICAN BOARD OF PEDIATRICS: *Oral.* Chicago, Oct. 13-15 and Boston, Dec. 1-3. Exec. Sec., Dr. John McK. Mitchell, 6 Cushman Road, Rosemont, Pa.

AMERICAN BOARD OF PLASTIC SURGERY: Houston, Nov. 30, Dec. 1-2. Sec., Dr. Bradford Cannon, 4647 Pershing Ave., St. Louis.

AMERICAN BOARD OF PREVENTIVE MEDICINE AND PUBLIC HEALTH: St. Louis, Oct. 28-29. Sec., Dr. Ernest L. Stebbins, 615 N. Wolfe St., Baltimore.

AMERICAN BOARD OF PROCTOLOGY: Philadelphia, Nov. 11-12, Part II—Anorectal Surgery. Sec.-Gen., Dr. Louis A. Buie, 102-110 Second Ave., S.W., Rochester.

AMERICAN BOARD OF PSYCHIATRY AND NEUROLOGY: New York, Dec. 18-19. Final date for filing applications is Sept. 1. Sec., Dr. Francis J. Braceland, 102-110 Second Ave., S.W., Rochester.

AMERICAN BOARD OF RADIOLOGY: Chicago, Dec. 5-10. Quota of appointments already filled. Sec., Dr. B. R. Kirklin, Mayo Clinic, Rochester.

AMERICAN BOARD OF SURGERY: *Written.* Various Centers, Oct. 25. *Written.* Various centers, March 1951. Final date for filing applications is Dec. 1, 1950. Sec., Dr. J. Stewart Rodman, 225 South 15th Street, Philadelphia.

AMERICAN BOARD OF UROLOGY: Chicago, Feb. 10-14, 1951. Final date for filing applications is Sept. 1, 1950. Sec., Dr. Harry Culver, 7935 Sunnyside Road, Minneapolis 21.

BOARDS OF MEDICAL EXAMINERS

ALABAMA: Montgomery, June 26-28. Sec., Dr. D. G. Gill, 519 Dexter Ave., Montgomery.

ALASKA: * Juneau, Sept. 5. Special examinations given on application. Sec., Dr. W. M. Whitehead, Box 140, Juneau.

ARKANSAS: * Little Rock, Nov. 9-10. Sec., Dr. Joe Verser, Harrisburg. Homeopathic: Nov. Sec., Dr. C. S. Bungart, 105 N. 14th St., Ft. Smith. Eclectic: Nov. 9. Sec., Dr. C. H. Young, 1415 Main St., Little Rock.

CALIFORNIA: *Examination Written,* Sacramento, Oct. 16-19. *Examination, Oral and Clinical for Foreign Medical School Graduates,* San Francisco, Nov. 12. *Reciprocity, Oral Examination,* San Francisco, Nov. 11. Sec., Dr. Frederick N. Scatena, 1020 N Street, Sacramento 14.

COLORADO: * Denver, Jan. 3-5, 1951. Exec. Sec., Mrs. B. M. Hudgens, 831 Republic Bldg., Denver.

CONNECTICUT: * Hartford, Nov. 14-15. Sec., Dr. Creighton Barker, 160 St. Ronan St., New Haven. Homeopathic: Nov. 14-15. Sec., Dr. Donald A. Davis, 38 Elizabeth St., Derby.
DELAWARE: Dover, Jan. 9-11. *Reciprocity.* Jan. 18, 1951. Sec., Dr. J. S. McDaniel, 229 S. State St., Dover.
DISTRICT OF COLUMBIA: * Washington, Sept. 18. Sec., Dr. Daniel L. Seckinger, 4130 Municipal Bldg., Washington.
FLORIDA: * Jacksonville, Nov. 26-28. Sec., Dr. Homer Pearson, 701 Dupont Bldg., Miami.
GEORGIA: Atlanta, Oct. 10-11. Sec., Mr. R. C. Coleman, 111 State Capitol, Atlanta 3.
HAWAII: Honolulu, Jan. 8-11, 1951. Sec., Dr. I. L. Tilden, 881 S. Hotel St., Honolulu.
IDAHO: Boise, Jan. 8, 1951. Sec., Mr. Armand L. Bird, 305 Sun Bldg., Boise.
ILLINOIS: Chicago, Oct. 10-12. Superintendent of Registration, Mr. Charles F. Kervin, Capitol Bldg., Springfield.
INDIANA: Indianapolis, June 1951. Exec. Sec., Miss Ruth V. Kirk, 1138 K. of P. Bldg., Indianapolis 4.
IOWA: *Written.* Des Moines, Dec. 4-6. Acting Director, Division of Examination and Licensure, State Department of Health, 1027 Des Moines St., Des Moines.
KANSAS: Topeka, Dec. 13-14. Sec., Dr. O. W. Davidson, 772 New Brotherhood Bldg.; Kansas City.
LOUISIANA: New Orleans, Dec. 8-10. Sec., Dr. R. B. Harrison, 1507 Hibernia Bank Bldg., New Orleans.
MAINE: Portland, Nov. 14-15. Sec., Dr. Adam P. Leighton, 192 State St., Portland.
MARYLAND: Baltimore, Dec. 12-15. Sec., Dr. Lewis P. Gundry, 1215 Cathedral St., Baltimore 1.
MASSACHUSETTS: Boston, Jan. 23-26, 1951. Sec., Dr. Geo. R. Schadt, 37 State House, Boston.
MINNESOTA: * Minneapolis, Oct. 17-19. Sec., Dr. J. F. Du Bois, 230 Lowry Medical Arts Bldg., St. Paul 2.
MISSISSIPPI: Jackson, December. Asst. Sect., Dr. R. N. Whitfield, Jackson 113.
MONTANA: Helena, Oct. 2. Sec., Dr. S. A. Cooney, 7 W. 6th Ave., Helena.
NEBRASKA: * June 1951. Director, Mr. Oscar F. Humble, Room 1009, State Capitol Bldg., Lincoln.
NEW HAMPSHIRE: Concord, Sept. 13. Sec., Dr. John Samuel Wheeler, 107 State House, Concord.
NEW JERSEY: Trenton, Oct. 17-20. Sec., Dr. E. S. Hallinger, 28 W. State St., Trenton.
NEW MEXICO: * Santa Fe, Oct. 9-10. Sec., Dr. Charles J. McGoey, Coronado Building, Santa Fe.
NEW YORK: New York, Buffalo, Albany and Syracuse, Oct. 3-6. Sec., Dr. Jacob L. Lochner, 23 S. Pearl St., Albany.
NORTH CAROLINA: *Reciprocity.* Raleigh, Sept. 25. Sec., Dr. Ivan Procter, 226 Hillsboro St., Raleigh.
NORTH DAKOTA: Grand Forks, Jan. 3-6. Sec., Dr. C. J. Glaspel, Grafton.
OHIO: Columbus, December. Sec., Dr. H. M. Platter, 21 W. Broad St., Columbus.
OREGON: * *Examination.* Portland, January 1951. *Reciprocity.* Portland, Oct. 13. Sec., Mr. Howard I. Bobbit, 608 Failing Bldg., Portland 4.
PENNSYLVANIA: Philadelphia, January 1951. Acting Secretary, Mrs. M. G. Steiner, 351 Education Bldg., Harrisburg.
PUERTO RICO: *Examination.* Santurce, Sept. 5-9. Sec., Mr. Luis Cueto, Coll. Box 3717, Santurce.
RHODE ISLAND: * Providence, Oct. 5-6. Chief, Mr. Thomas B. Casey, 355 State Office Bldg., Providence.
SOUTH CAROLINA: Columbia, Nov. 13-15. Sec., Dr. N. B. Heyward, 1329 Blanding St., Columbia.
TENNESSEE: * Memphis, Sept. 27-28. Sec., Dr. H. W. Qualls, 1635 Exchange Bldg., Memphis 3.
TEXAS: * Fort Worth, November 9-11, 1950. Sec., Dr. M. H. Crabb, 1714 Medical Arts Bldg., Fort Worth.
UTAH: Salt Lake City, July 1951. Dir., Mr. Frank E. Lees, 324 State Capitol Bldg., Salt Lake City 1.
VERMONT: Burlington, February 1951. Sec., Dr. F. J. Lawliss, Richford.
VIRGINIA: Richmond, Nov. 30, Dec. 1-2. Sec., Dr. K. D. Graves, 631 First St., S.W., Roanoke.
WASHINGTON: * Seattle, January 1951. Sec., Mr. Edward C. Dohm, Department of Licenses, Olympia.
WEST VIRGINIA: Charleston, Oct. 2-4. Sec., Dr. N. H. Dyer, State Capitol, Charleston 6.
WISCONSIN: * River Falls, Jan. 9-11, 1951. Sec., Dr. C. A. Dawson, Tremont Bldg., River Falls.
WYOMING: Cheyenne, Oct. 2. Sec., Dr. Franklin D. Yoder, Capitol Bldg., Cheyenne.

* Basic Science Certificate required

BOARDS OF EXAMINERS IN THE BASIC SCIENCES

ALASKA: *Examination.* Juneau, last week in August. Sec., Dr. C. Earl Albrecht, Box 1931, Juneau.
ARIZONA: Tucson, Sept. 19. Sec., Mr. Francis A. Roy, Science Hall, Univ. of Arizona, Tucson.
ARKANSAS: Little Rock, Oct. 3-4. Sec., Mr. L. E. Gebauer, 1002 Donaghey Bldg., Little Rock.
COLORADO: *Examination.* Denver, Sept. 13-14. Sec., Dr. Esther B. Starks, 1459 Ogden St., Denver 3.
CONNECTICUT: Oct. 14. Executive Sec., M. G. Reynolds, State Board of Healing Arts, 110 Whitney Ave., New Haven 10.
DISTRICT OF COLUMBIA: Washington, Oct. 23-24. Dr. Daniel L. Seckinger, 4130 E. Municipal Bldg., Washington.
FLORIDA: Jacksonville, Nov. 11. Sec., Mr. M. W. Emmel, University of Florida, Gainesville.
IOWA: Des Moines, Oct. 10. Sec., Dr. Ben H. Peterson, Coe College, Cedar Rapids.
MICHIGAN: *Examination.* Ann Arbor, Oct. 13-14. Sec., Miss Eloise LeBeau, 101 North Walnut Street, Lansing 15.
MINNESOTA: Minneapolis, Oct. 3-4. Sec., Dr. Raymond N. Bieter, 105 Millard Hall, University of Minnesota, Minneapolis 14.
NEBRASKA: *Examination.* Omaha, Oct. 3-4. Director, Mr. Oscar F. Humble, Room 1009, State Capitol Building, Lincoln 9.
NEW MEXICO: *Examination.* Santa Fe, Sept. 17. Sec., Mrs. Marguerite K. Cantrell, Box 1522, Santa Fe.
OKLAHOMA: *Examination.* Oklahoma City, Sept. 15. Sec., Dr. Clinton Gallaher, 813 Braniff Building, Oklahoma City.
OREGON: *Examination.* Portland, Sept. 9. Sec., Dr. C. D. Byrne, University of Oregon, Eugene.
RHODE ISLAND: *Examination.* Providence, Nov. 8. Chief, Division of Professional Regulation, Mr. Thomas B. Casey, 366 State Office Building, Providence.
SOUTH DAKOTA: Vermillion, Dec. 1-2. Sec., Dr. Gregg M. Evans, 310 E. 15th St., Yankton.
TENNESSEE: Memphis, Sept. 21-22. Sec., Dr. O. W. Hyman, 874 Union Ave., Memphis 3.
TEXAS: *Examination.* Austin, Oct. 13-14, April 1951. Sec., Brother Raphael Wilson, 306 Nalle Building, Austin.
WASHINGTON: Seattle, January 1951. Sec., Mr. Edward D. Dohm, Department of Licenses, Olympia.
WISCONSIN: *Examination.* Milwaukee, Dec. 2. Sec., Mr. W. H. Barber, Scott and Watson Sts., Ripon.

Coming Medical Meetings

American Academy of Ophthalmology and Otolaryngology, Palmer House, Chicago, Oct. 8-13. Dr. W. L. Benedict, 100 First Avenue Bldg., Rochester, Minn., Secretary.
American Association of Obstetricians, Gynecologists and Abdominal Surgeons, The Homestead, Hot Springs, Va., Sept. 7-9. Dr. Leroy A. Calkins, University of Kansas Medical Center, Kansas City 3, Secretary.
American Congress of Physical Medicine, Boston, Aug. 29-Sept. 1. Dr. Richard Kovacs, 2 E. 88th St., New York City 28, Secretary.
American Hospital Association, Atlantic City, Sept. 18-22. Mr. George Bugbee, 18 E. Division St., Chicago 10, Executive Director.
Biological Photographic Association, Hotel Sheraton, Chicago, Sept. 6-8. Mr. Lloyd E. Varden, Pavelle Color, Inc., 533 W. 57th St., New York City 19, Secretary.
Colorado State Medical Society, Broadmoor Hotel, Colorado Springs, Sept. 20-23. Mr. Harvey T. Sethman, 1612 Tremont Place, Denver 2, Executive Secretary.
Delaware, Medical Society of, Dover, Oct. 2-4. Dr. Andrew H. Gehret, 1007 Park Place, Wilmington, Secretary.
District of Columbia, Medical Society of the, Washington, Oct. 2-4. Mr. Theodore Wiprud, 1718 M Street N.W., Washington 6, Secretary.
Idaho State Medical Association, Sun Valley, Sept. 6-9. Dr. Alfred M. Popma, 220 N. First St., Boise, Secretary.
Indiana State Medical Association, French Lick, Sept. 25-27. Mr. Ray E. Smith, 23 E. Ohio St., Indianapolis 4, Executive Secretary.
Kentucky State Medical Association, Brown Hotel, Louisville, Sept. 26-28. Dr. Bruce Underwood, 620 S. Third St., Louisville 2, Secretary.
Michigan State Medical Society, Book-Cadillac Hotel, Detroit, Sept. 20-22. Dr. L. Fernald Foster, 2020 Olds Tower, Lansing 8, Secretary.
Mississippi Valley Medical Society, Springfield, Ill., Sept. 27-29. Dr. Harold Swanberg, 510 Maine St., Quincy Ill., Secretary.
National Medical Association, Hampton Institute, Hampton, Va., Aug. 28-Sept. 1. Dr. John T. Givens, 1108 Church St., Norfolk 10, Va., General Secretary.
Nevada State Medical Association, Las Vegas, Oct. 5-7. Dr. Wesley W. Hall, 307 West Sixth St., Reno, Secretary.
New Hampshire Medical Society, Mt. Washington Hotel, Bretton Woods, Sept. 10-12. Dr. Deering G. Smith, 44 Chester St., Nashua, Secretary.
Oregon State Medical Society, Gearhart, Sept. 27-29. Dr. Werner E. Zeller, Medical-Dental Bldg., Portland 5, Secretary.
Southwestern Surgical Congress, Shirley-Savoy Hotel, Denver, Colo., Sept. 25-27. Dr. C. R. Rountree, 525 N.W. Eleventh St., Oklahoma City, Secretary.
Vermont State Medical Society, Mt. Washington Hotel, Bretton Woods, N. H., Sept. 10-12. Dr. James P. Hammond, 128 Merchants Row, Rutland, Secretary.
Virginia, Medical Society of, Roanoke, Oct. 8-11. Mr. H. S. Johnson, 1200 East Clay St., Richmond 19, Executive Secretary.
Washington State Medical Association, Davenport Hotel, Spokane, Sept. 10-13. Dr. James W. Haviland, 338 White-Henry-Stuart Bldg., Seattle, Secretary.
Wyoming State Medical Society, Cody, Sept. 7-9. Dr. George H. Phelps, 1604 Capitol Ave., Cheyenne, Secretary.

International Meetings

International Conference of Speech and Voice Therapy, Amsterdam, Holland, Aug. 21-26. Dr. Deso A. Weiss, 106 E. 85th St., New York City 28, Secretary.
International Congress on Cardiology, Paris, France, Sept. 3-9. Dr. Mouquin, 78 rue de l'Abbé-Groult, Paris 15e, France, Secretary-General.
International Congress on Criminology, Palais de la Sorbonne Grand Amphitheater, Paris, France, Sept. 10-19. M. Pierre Piprot d'Alleaume, 188 Ave. Victor Hugo, Paris 16e, France, General Secretary.
International Congress on Diseases of the Chest, Carlo Forlanini Institute, Rome, Italy, Sept. 17-22. Prof. A. Omodei Zorini, Carlo Forlanini Institute, Rome, Italy, Chairman.
International Congress of Experimental Cytology, New Haven, Conn., U. S. A., Sept. 4-8. Dr. Danielli, King's College, London, England, Secretary.
International Congress on Internal Medicine, Paris, France, Sept. 11-14. Prof. Justin Besancon, 38 rue Barbet de Jouy, Paris, France, Secretary.
International Congress of Microbiology, Rio de Janeiro, Brazil, Aug. 17-24. Dr. Olympio de Fonseca, Institut Oswaldo Cruz, Rio de Janeiro, Secretary.
International Congress of Psychiatry, Palais de la Sorbonne, Paris, France, Sept. 19-27. Dr. Henri Ey, 1 rue Cabanis, Paris 14e, France, General Secretary.
International Society for the History of Medicine, Amsterdam, Holland, Aug. 14-20. Professor Guiart, 58 Blvd. de la Croix Rousse, Lyon, France, Secretary.
International Society for Internal Medicine, Paris, France, Sept. 11-15. Dr. Albert M. Snell, 102 Second Ave. S.W., Rochester, Minn., Chairman, American Committee.
International Union Against Tuberculosis, Copenhagen, Denmark, Sept. 1-8. Prof. Etienne Bernard, 66 Blvd. St. Michel, Paris 6e, France, Secretary.
Medical Women's International Association, Philadelphia, Penna., U. S. A., Sept. 10-16. Dr. Montreuil-Straus, 75 rue de l'Assomption, Paris, France, Secretary.
World Federation for Mental Health, Cité Universitaire, Paris, France, Aug. 31-Sept. 7. Secretary, 19 Manchester St., London, W.1, England.

DEATHS

Bolduan, Charles Frederick, Northport, N. Y.; born in Bielefeld, Germany, May 7, 1873; received his Ph.G. degree at the College of Pharmacy, New York, 1893; later studied at the University of Berlin; Columbia University College of Physicians and Surgeons, New York, 1901; in 1913 established the bureau of health education of the City of New York Department of Health, serving as its director until 1918 and from 1928 to 1943; began his association with the department of health in 1904, when he was appointed bacteriologist; in 1907 became assistant to the general medical officer of health department and served until 1913; chief of the section on public health education of the U. S. Public Health Service from 1918 to 1921, when he became a surgeon, detailed to the U. S. consular service in Europe until 1928; professor of bacteriology and hygiene at Fordham University, New York, from 1905 to 1908 and lecturer in preventive medicine and hygiene at the School of Sociology and Social Service from 1928 to 1942; lecturer in preventive medicine and hygiene at his alma mater from 1918 to 1922; founder and honorary president of the New York Diabetes Association; fellow of the American Public Health Association and New York Academy of Medicine; member of the New York Society of Medical History; honorary member of the American Diabetes Association; secretary of the New York Tuberculosis Preventorium for Children; for many years editor of the *Weekly Bulletin* of the New York City Department of Health; author of "Immune Sera," "Applied Bacteriology for Nurses" and "Public Health and Hygiene"; died in the Bellevue Hospital, New York, July 4, aged 77, of uremia.

Buesser, Frederick G., ✦ Detroit; born in Troy, N. Y., April 27, 1881; Detroit College of Medicine, 1905; associate professor of gastro-enterology from 1919 to 1935 when he became professor of clinical medicine at his alma mater, now known as Wayne University College of Medicine, where he served as chairman of the faculty advisory council; specialist certified by the American Board of Internal Medicine; served overseas during World War I with Base Hospital number 17 from Harper Hospital and rose to the rank of major, serving two years in the American Expeditionary Forces; fellow of the American College of Physicians; in 1940 president of the Detroit Academy of Medicine; for many years senior physician and since 1946 consultant at Harper Hospital; consultant at the Detroit Tuberculosis Sanatorium and the Charles Godwin Jennings Hospital; in 1947 his life size portrait was presented to Wayne University College of Medicine by the faculty; died July 1, aged 69.

Henske, Andrew Clemens ✦ St. Louis; born in 1883; Washington University School of Medicine, St. Louis, 1906; specialist certified by the American Board of Internal Medicine; assistant professor of clinical medicine at St. Louis University School of Medicine; fellow of the American College of Chest Physicians; member of the American Trudeau Society; consultant physician in tuberculosis, St. Louis County Hospital, Clayton and City Sanitarium; associated with Firmin Desloge Hospital and St. Mary's Group of Hospitals; medical director of Mount St. Rose Sanatorium; medical director of the Mutual Savings Life Insurance Company; died suddenly July 9, aged 66, of heart disease.

Kincheloe, Charles Fuller ✦ Washington, D. C.; born in Washington, D. C., April 29, 1907; University of Virginia Department of Medicine, Charlottesville, 1931; member of the Medical Society of Virginia; specialist certified by the American Board of Orthopaedic Surgery; served during World War II; instructor in orthopedic surgery at Georgetown University School of Medicine; associated with Emergency, Children's and Doctors hospitals; affiliated with the Arlington (Va.) and Alexandria (Va.) hospitals; on the courtesy staff of Georgetown University Hospital and Garfield Hospital, where he died July 12, aged 43.

Walker, Isaac Chandler, Fryeburg, Maine; Johns Hopkins University School of Medicine, Baltimore, 1909; member of the American Medical Association, Massachusetts Medical Society, Association of American Physicians and American Society for Clinical Investigation; served during World War I; specialist certified by the American Board of Internal Medicine; formerly practiced in Boston, where he was assistant professor of medicine at Harvard Medical School and was affiliated with Peter Bent Brigham and Carney hospitals; died June 17, aged 67, of coronary occlusion.

✦ Indicates Fellow of the American Medical Association.

Alderman, Ernest Hamlin ✦ Richmond, Va.; University of Virginia Department of Medicine, Charlottesville, 1921; member of the American Psychiatric Association; affiliated with Westbrook Sanatorium; died suddenly June 27, aged 59, of coronary thrombosis.

Arnold, Duma Carroll ✦ Minneapolis; University of Pennsylvania School of Medicine, Philadelphia, 1920; affiliated with Asbury and Maternity hospitals; died in Philadelphia June 12, aged 58, of acute cardiac failure and hypertensive disease.

Bashinski, Benjamin, Macon, Ga.; Tulane University of Louisiana School of Medicine, New Orleans, 1916; member of the American Medical Association and the American Academy of Pediatrics; specialist certified by the American Board of Pediatrics; affiliated with the Middle Georgia Hospital; died in Atkinson, Ga., May 21, aged 63, of cerebral hemorrhage.

Basinger, Harvey Levi ✦ Lima, Ohio; Starling-Ohio Medical College, Columbus, 1914; president of the Academy of Medicine of Lima and Allen County; served during World War I; affiliated with Lima Memorial Hospital and St. Rita's Hospital, where he died June 22, aged 59, of cirrhosis of the liver.

Blackman, W. Wilbur ✦ Atlanta, Ga.; Georgia College of Eclectic Medicine and Surgery, Atlanta, 1913; affiliated with Blackman-Walton Sanatorium; died June 16, aged 68, of coronary disease.

Blunden, Joseph Emil, Flintridge, Calif.; Medical College of Ohio, Cincinnati, 1903; formerly a medical missionary in Africa; died in Monrovia June 14, aged 75.

Boling, Tyler Robert, Grantsville, W. Va.; Medical College of Virginia, Richmond, 1931; member of the American Medical Association; spent a year with the U. S. Public Health Service at San Juan, Puerto Rico; served in the South Pacific during World War II; affiliated with Camden-Clark Memorial Hospital in Parkersburg; died in Tucson, Ariz., June 30, aged 42, of pulmonary emphysema.

Bowers, Bert Alfred ✦ Sioux City, Iowa; State University of Iowa College of Medicine, Iowa City, 1905; veteran of the Spanish-American War; affiliated with Lutheran and St. Joseph's hospitals; died June 29, aged 72, of coronary disease.

Coen, James Randolph, Littlefield, Texas; University of Oklahoma School of Medicine, Oklahoma City, 1927; past president of Lamb County Medical Society; member of the American Medical Association; died in Littlefield Hospital June 14, aged 53, of acute myocardial infarction.

Diederich, Victor Peter ✦ Hot Springs National Park, Ark.; Rush Medical College, Chicago, 1911; member of the American Association for Thoracic Surgery; died in St. Mary's Hospital, Rochester, Minn., July 7, aged 63, of pulmonary embolism and arteriosclerotic gangrene of the left leg.

Donahue, Julia Maude, Massillon, Ohio; Northwestern University Women's Medical School, Chicago, 1892; member of the American Medical Association; specialist certified by the American Board of Psychiatry and Neurology; formerly a medical missionary in China; served during World War I; for many years affiliated with Massillon State Hospital; died in Shaker Heights, Ohio, June 19, aged 83, of congestive heart failure.

Dower, Clancy Melvin, Boulder, Colo.; College of Medical Evangelists, Loma Linda and Los Angeles, 1942; certified by the National Board of Medical Examiners; affiliated with Boulder-Colorado Sanitarium and Hospital; died in Amarillo, Texas, April 1, aged 34, of rheumatic heart disease.

Fay, Ella Chaffee, Whitewater, Wis.; National Medical College, Chicago, 1899; died in Tallahassee, Fla., June 24, aged 82.

Fletcher, Carlton Cole, Moultrie, Ga.; Southern Medical College, Atlanta, 1897; died June 21, aged 86.

Gerdine, John, Jersey, Ga.; University College of Medicine, Richmond, 1909; member of the American Medical Association; affiliated with Walton County Hospital, Monroe; died June 13, aged 74, of heart disease.

Griffin, Donald Carr, Garrison, N. Y.; Cornell University Medical College, New York, 1932; served during World Wars I and II; civilian physician at Station Hospital in West Point, where he died June 30, aged 50, of aplastic anemia.

Hutton, Willis A. ✦ Springfield, Mass.; McGill University Faculty of Medicine, Montreal, Que., Canada, 1913; an Associate Fellow of the American Medical Association; died in Wesson Memorial Hospital June 27, aged 67, of duodenal ulcer, duodenal diverticula and coronary thrombosis.

Katz, Michael, Brooklyn; Long Island College Hospital, Brooklyn, 1905; died in Mount Sinai Hospital July 5, aged 79, of congestive heart failure.

King, Isaac Newton, Prince Frederick, Md.; Baltimore Medical College, 1897; College of Physicians and Surgeons, Baltimore, 1901; member of the American Medical Association; past president of the Medical and Chirurgical Faculty of Maryland and the Calvert County Medical Society; for many years deputy state and county health officer; affiliated with Calvert County Hospital, of which he had been co-founder; died June 25, aged 76, of carcinoma.

Lanich, Lloyd Jackson, Kingwood, W. Va.; University of Maryland School of Medicine, Baltimore, 1915; member of the American Medical Association and Medical and Chirurgical Faculty of Maryland; served during World War I; died in Allegheny General Hospital, Pittsburgh, June 27, aged 63, of cerebral hemorrhage.

Leonard, Frederick C., Carbondale, Pa.; Albany (N. Y.) Medical College, 1897; chief examining physician of the Carbondale draft board during recruitment for World War I; affiliated with Carbondale General Hospital, where he died June 17, aged 75, of myocarditis.

Lowe, James Theodore, Mangum, Okla.; University of Tennessee College of Medicine, Memphis, 1912; member of the American Medical Association; served during World War I; died June 20, aged 64.

McAulay, Marion Brooks, Petaluma, Calif.; Hahnemann Medical College of the Pacific, San Francisco, 1905; past president of the Sonoma County Medical Association; died in San Carlos June 18, aged 72, of adenocarcinoma of the stomach.

McDill, John Eldon ✦ Jackson, Miss.; University of Tennessee College of Medicine, Memphis, 1916; served overseas during World Wars I and II; associated with the Veterans Administration Hospital; formerly affiliated with St. Dominic's Hospital and Mississippi Baptist Hospital, where he died July 6, aged 61, of pneumonia.

Mackey, Abner ✦ Midland, Texas; University of Oklahoma School of Medicine, Oklahoma City, 1939; member of the Oklahoma State Medical Association; served during World War II; formerly affiliated with the Bone and Joint Hospital-McBride Clinic in Oklahoma City; recently appointed to Midland Memorial Hospital; died in Sterling City June 26, aged 34, of injuries received in an automobile accident.

McMahon, Michael Francis Edward, Worcester, Mass.; Tufts College Medical School, Boston, 1905; died June 20, aged 68.

Maddox, William Hedrick, Wauseon, Ohio; Ohio Medical University, Columbus, 1898; member of the Radiological Society of North America and the American College of Radiology; specialist certified by the American Board of Radiology; served during World War I; affiliated with Detwiler Memorial Hospital; died June 17, aged 77, of coronary occlusion.

Maxwell, Leslie Howe, Fort Lauderdale, Fla.; Indiana University School of Medicine, Indianapolis, 1909; served during World War I; died in St. Francis Hospital, Miami Beach, June 29, aged 66.

Mayhew, Charles Holmes, Millville, N. J.; Jefferson Medical College of Philadelphia, 1903; member of the American Medical Association; also a graduate in pharmacy; served during World War I; on the staff of Millville Hospital; died June 29, aged 74.

Miner, James La Salle, Tulsa, Okla.; University of Vermont College of Medicine, Burlington, 1905; member of the American Medical Association; died June 4, aged 68.

Mundy, William Nelson III ✦ Toledo, Ohio; Harvard Medical School, Boston, 1943; certified by the National Board of Medical Examiners; interned at Children's and Massachusetts General hospitals in Boston; at one time fellow in internal medicine at Barnes Hospital in St. Louis; affiliated with Toledo and Maumee Valley hospitals; died in Silver Creek, N. Y., June 29, aged 32, of injuries received in an automobile accident.

Newcome, Thomas H., Seaford, Del.; Western Pennsylvania Medical College, Pittsburgh, 1892; member of the American Medical Association and the Medical Society of the State of Pennsylvania; died June 27, aged 82, of carcinoma.

Penwell, George Harvey ✦ Modesto, Calif.; University of Kansas School of Medicine, Kansas City, 1924; affiliated with Robertson and Stanislaus County hospitals; died June 16, aged 52, of coronary occlusion.

Poltchaninoff, Nicholas John ✦ New York; Psycho-Neurological Institute, Petrograd, Russia, 1914; Columbia University College of Physicians and Surgeons, New York, 1922; affiliated with St. Luke's Hospital; died June 22, aged 58, of carcinoma of the stomach.

Prather, Charles DeVault Jr., ✦ Leesburg, Va.; George Washington University School of Medicine, Washington, D. C., 1945; certified by the National Board of Medical Examiners; affiliated with Loudoun County Hospital, where he died June 29, aged 28, of bronchopneumonia.

Reedy, Robert Aaron, Rockford, Ill.; Chicago College of Medicine and Surgery, 1909; member of the American Medical Association; died in the Swedish-American Hospital June 25, aged 71, of uremia and hypostatic pneumonia.

Robertson, William Fernando ✦ Orofino, Idaho; College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois, 1901; health officer; died in St. Joseph's Hospital, Lewiston, June 27, aged 72, of uremia.

Rumford, Samuel C., Wilmington, Del.; University of Pennsylvania Department of Medicine, Philadelphia, 1902; formerly treasurer of the Medical Society of Delaware; for many years on the staff of Delaware Hospital; at one time medical director of the Continental Life Insurance Company; died June 22, aged 73, of arthritis and arteriosclerosis.

Russell, John Abner, Auburn, Calif.; Missouri Medical College, St. Louis, 1898; member of the American Medical Association; served as superintendent of Placer County Hospital; died June 21, aged 76.

Schmitter, Ferdinand ✦ Colonel, U. S. Army, retired, Plandome, N. Y.; Johns Hopkins University School of Medicine, Baltimore, 1903; entered the U. S. Army in 1906; served during World War I; retired after sixteen years' service Nov. 13, 1922; promoted to the rank of colonel under a special act of June 21, 1930; an examining physician of the Workmen's Compensation Board; died in Station Hospital, Governors Island, July 28, aged 74.

Sigler, Edwin Walker ✦ Henderson, Ky.; University of Tennessee College of Medicine, Memphis, 1934; served as county health officer; chief of staff, Methodist Hospital; died June 25, aged 44, of multiple myeloma.

Sterrett, John Victor, Philadelphia; Meharry Medical College, Nashville, Tenn., 1931; died in Philadelphia General Hospital June 23, aged 49, of cerebral vascular thrombosis.

Van Sciver, John Elnathan L., Haddonfield, N. J.; Jefferson Medical College of Philadelphia, 1899; member of the American Medical Association; past president of the Camden County Medical Society; died in Cooper Hospital, Camden, June 16, aged 78, of cardiovascular renal disease.

Voelkner, George H., Detroit; Detroit College of Medicine, 1904; served as city physician; affiliated with Grace and St. Mary's hospitals; consulting physician, Detroit House of Correction; died in Providence Hospital June 2, aged 67, of postoperative massive thrombosis of the aorta and iliac artery.

Watson, Henry DeWitt, Binghamton, N. Y.; New York University Medical College, New York, 1896; member of the American Medical Association and American Academy of Ophthalmology and Otolaryngology; for many years secretary of the Broome County Medical Society; died in City Hospital June 20, aged 79, of carcinoma of liver and pancreas.

Weir, Levi Johnson ✦ Marshall, Ill.; Kentucky School of Medicine, Louisville, 1893; Rush Medical College, Chicago, 1896; member of the American Medical Association; died in Paris (Ill.) Hospital June 28, aged 80, of cerebral hemorrhage.

Wilson, Kenneth George, Laguna Beach, Calif.; University of Minnesota Medical School, Minneapolis, 1941; member of the American Medical Association; formerly fellow in ophthalmology at Mayo Foundation in Rochester, Minn.; died June 19, aged 35.

Wiltshire, James W., Bloomington, Ind.; Chicago Homeopathic Medical College, 1896; member of the American Medical Association; died in Bloomington Hospital June 20, aged 78, of hypertensive cardiovascular disease.

Witte, Hermann L., Trenton, N. J.; Christian-Albrechts-Universität Medizinische Fakultät, Kiel, Prussia, Germany, 1922; Hahnemann Medical College and Hospital of Philadelphia, 1924; affiliated with Trenton General Hospital; died June 7, aged 53, of coronary occlusion.

Wood, Frederick Barton ✦ Elmhurst, N. Y.; Baltimore Medical College, 1910; on the emeritus staff of Flushing (N. Y.) Hospital; died June 24, aged 67, of heart disease.

FOREIGN LETTERS

TURKEY

(From a Regular Correspondent)

ANKARA, June 30, 1950.

Poliomyelitis in Turkey

The monthly reports submitted to the Ministry of Health and Social Assistance indicate that there are only 2 or 3 cases of acute anterior poliomyelitis each year and that they occur usually during the summer and autumn. Physicians seldom have an opportunity to observe the disease in its acute stage; on admittance of the patients to the Istanbul, Izmir and Ankara hospitals it becomes evident that they have paralysis due to poliomyelitis. There is no evidence that an epidemic of poliomyelitis has ever occurred in Turkey. Medical students never observe the disease in its acute stage and seldom see a patient with recent paralysis.

During the last five years 8 patients with sequelae of poliomyelitis were admitted to the Istanbul University Children's Hospital. In a few patients six to fifteen days had elapsed since the onset, in several forty days to four months. Three patients were from Istanbul and environs, 2 from Trakya (the European part of Turkey) and 3 from Anatolia. In all patients the paralysis had occurred two or three days after the onset of the disease. The ages of the 5 girls and 3 boys ranged from 3 to 8 years. In 1 patient the paralysis had affected the neck and arms, in 2 patients the neck, arms and legs and in 5 patients the legs only. With physical therapy the paralysis improved.

Dr. Haldun Efdal Tekiner, chief of the Children's Department of the Ankara General Hospital, has reported 7 to 8 cases a year during the past fifteen years with a mortality of 1 per year. A few patients were admitted in the febrile stage, most patients after paralysis had occurred. The majority came from the surrounding provinces. The need for use of an iron lung arose only once; it greatly benefited the patient. In all other patients paralysis of the neck, arms and legs occurred. As the Ankara General Hospital is the only model institution in central Anatolia where equipment is provided for physical therapy, patients with infantile paralysis from Ankara and outlying provinces apply for treatment at the outpatient department. In children over 12 years of age poliomyelitis is seldom encountered.

In the summer of 1947 the 2 year old son of a prominent Ankara physician on returning from a summer resort in Istanbul had a high fever and was admitted to the Ankara General Hospital, where the real nature of the disease was not recognized until three days later, when paralysis set in. This was the first patient admitted to the hospital with poliomyelitis in the acute stage.

Heart Catheterization in Circulatory Failure

Prof. Zeki Hakki Pamir and his associate Dr. Celal Ertug of the Ankara University Gülhane Hospital reported on the technic of heart catheterization, the first to be carried out in Turkey. It was performed on 20 patients with pulmonary emphysema and cor pulmonale, 7 patients with normal heart function serving as controls. In the controls the oxygen saturation point in the blood of the right auricle and in the vena cava superior was 12.9 to 14 volumes per cent. In the blood of the right auricle the saturation point was 52 to 57 volumes per cent, in the blood of the right ventricle the percentage was almost the same as that of the right auricle. When there was a great difference in the volume of the oxygen and carbon monoxide in the blood of the vena cava superior and the auricle and that of the ventricle it indicated a congenital cardiac anomaly. In this patient the difference in the oxygen saturation of the vena cava superior and that of the right auricle was more than 2 to 3 volumes per cent, thus indicating that the blood of the two auricles merged and that a defect in the septum ventricularum was involved. The oxygen saturation point in the blood of the arteria femoralis of the controls registered 17.3 to 19 per cent and in patients with pulmonary emphysema and cor pulmonale 11.9 to 16 per cent. In the patient with a congenital cardiac anomaly the oxygen saturation point in the arteria femoralis was approximately the same.

The cardiac output in the controls was 4,490 to 5,600 cc. per minute. When the sphygmomanometer cuff was applied to the leg of the controls the right auricle output ceased simultaneously. In the patients with pulmonary emphysema and cor pulmonale the cardiac output per minute was always higher than that in the controls, with whose right auricle output it conformed. A close relation between the circulatory failure and the cardiac output was not demonstrated. Although the cardiac output sometimes diminished in patients given digitalis, the drug had no effect on the circulatory insufficiency; sometimes the rate decreased but there was no effect on the cardiac output. In cor pulmonale the cardiac output and the pressure in the right auricle rise to a definite point; this mechanism, as it does in anemia, constitutes a compensation against the diminishing oxygen utilization. When the compensation ceases, the cardiac output and the right auricle pressure continue for a short time, after which obvious deficiency symptoms appear. Interdependence between the force of the cardiac output and the cardiac failure was not observed. The dissimilarity between the clinical symptoms and the cardiac output depends on the separate function of the compensatory mechanism.

Prof. Nihad Reshad Belger Minister of Health and Social Assistance

On May 14 in the first free election in Turkey, the Republican People's Party (C. H. P.), which has been in office for twenty-seven years, was defeated by the Democrats, who now hold 413 of the 487 seats in the National Assembly. When the first president, Field Marshal Kemal Ataturk, the founder of the republican regime, died, in 1938, General Ismet Inönü became his successor. The third president is Celal Bayar, a Democrat and banker-statesman.

Prof. Nihad Reshad Belger of Istanbul University, department of hydrology and climatology, received his medical degree from the Imperial Ottoman Medical School in Istanbul in 1901. He was sent to Bombay, India, to investigate and study bubonic plague and vaccine. Professor Belger, born at Istanbul in 1881, spent many years in France, where he received a second medical degree from the University of Paris, became assistant to Prof. Marcel Labbé, studied laboratory procedure under Prof. Fernand Widal, bacteriology under Professor Bezançon, pathology under Professor Roussy, pulmonary tuberculosis under Leon Bernard, venereal diseases under Jeanselm, pediatrics under Nobécourt, gastrophotography under Bécart, proctology under Bensaude, Gosset and Savingnac and diseases of the digestive system and hydroclimatic treatment under Professor Villoret.

When he returned to Turkey in 1919 Professor Belger was appointed specialist in internal medicine at the Guraba Charity Yenibahce Hospital in Istanbul. During the liberation he served in Paris and London as semiofficial representative of the Turkish Nationalist government of Ankara. He was a member of the

delegation to the first and second London conferences, and at the Lausanne conference in 1923 he represented the press. In 1937 he was appointed director and chief adviser of the Yalova Springs (radioactive) near Istanbul. Professor Belger first diagnosed President Kemal Ataturk's disease, and in 1938 was appointed professor of hydrology and climatology at Istanbul University. Besides his Paris doctoral thesis "Dissertation on the Diagnosis of Cancer of the Stomach," he has made numerous contributions to French and Turkish medical journals and has written a book on "Indications and Technic of Thermal Therapy at the Yalova Springs," as well as the 1943 university lectures on "Proper Nourishment, Diet and Disease." In 1912 he attended the international congress of the Red Cross in Washington, D. C., as a delegate of the Turkish Red Crescent Society, in 1926 the congress in Vichy, France, in 1935 in Plombières, France and in 1937 the international hydroclimatology congress in Wiesbaden, Germany. Professor Belger is a member of various medical societies in France, England and Turkey.

BRAZIL

(From a Regular Correspondent)

São Paulo, July 20, 1950.

Immunobiologic Effect of BCG in Leprosy

A fundamental fact of immediate practical interest is the capacity shown by BCG vaccine given by the oral route to develop positive reactions to the Mitsuda-Rost lepromin test in children. This is a further demonstration of the absorption of BCG through the digestive tract. In this new field of investigation Drs. Nelson Souza Campos, José Rosemberg and Jamil Aun have just published their observations on the immunobiologic relation between tuberculosis and leprosy; they studied the effect of BCG on reaction with lepromin. The authors studied the positive effect of BCG on the lepromin test reaction in children interned in the *Educandario Santa Teresinha* in Carapicuiba, State of São Paulo. Orally given BCG in 39 children aged 1 to 18 months, separated from their leprous parents as soon as they were born, has resulted in all children in negative response to the Mantoux test in a 1:10 dilution and in an immune reaction to the lepromin test.

Group A.—Twelve children received one single dose of 0.10 Gm. of BCG. Nine proved tuberculin sensitive at variable times. Eight of them, on whom the lepromin test was made forty days before vaccination and was found negative thirty days afterward, had a remotely positive reaction to the test as an effect of the BCG, between the seventieth and one hundred and twelfth days. In the other 4 cases, reaction to a second lepromin test forty-nine days after vaccination again proved negative.

Group B.—Twenty-seven children received progressive doses of BCG daily for twenty-eight days, until each had received 1.19 Gm. All of them proved tuberculin allergic at variable time intervals, the Mantoux test at 1:10 being clearly positive in 24 children and dubious in 3. Reaction to the lepromin test, performed forty days before vaccination was begun and found negative thirty days afterward, became faintly positive in 25 cases because of the BCG between the seventieth and one hundred and twelfth days. A second lepromin test performed twenty-three days after vaccination was positive in all of the cases in which this procedure was used.

The dose of BCG appears to have a definite influence on the incidence of positive reactions to the lepromin tests in persons with negative reactions before BCG as well as on the percentage of reactions becoming positive and on their intensity.

The authors have considered the probable relation between these two reactions and the specificity of the lepromin test. The apparently contradictory aspect of the tuberculin and lepromin reactions has been emphasized, since the former expresses, in tuberculosis, a state of allergy, i. e., of hypersensitiveness, whereas the latter means, in leprosy, a state of immunity, i. e., resistance. The authors believe that BCG vaccine should be recommended for all children of leprous parents during the first days of life.

Megaesophagus and Trypanosomiasis

The problem of the simultaneous occurrence of megaesophagus and American trypanosomiasis (Chagas' disease) was discussed by Dr. Jacques Bulcão in a comparative and critical study on the various factors. Two cases were reported by Dr. Bulcão. The author suggests that trypanosomiasis is an important etiologic factor in megaesophagus.

DENMARK

(From a Regular Correspondent)

Copenhagen, July 23, 1950.

Pernicious Anemia Followed by Gastric Cancer

More than twenty years have passed since the treatment of pernicious anemia with liver was instituted. Its benefits, particularly with regard to the ultimate fate of the patients, can now be evaluated. In the Medical Department of the Bispebjærg Hospital (Chief, Professor Meulengracht) Drs. J. Mosbech and A. Videbræk have undertaken a follow-up study of the 301 patients with pernicious anemia treated in this hospital in the period 1928-1949. The mean observation period was 10.5 years. When this study was completed, on June 1, 1949, it was found that 83 of the 219 women and 32 of the 82 men had died in the interval. The expected deaths in the population of Copenhagen of the same age and sex in the same period would have numbered 89 for women and 28 for men. In other words, the expected deaths for women were actually more numerous than the deaths among the women with pernicious anemia; for both sexes the number of deaths was approximately the same (115 among the pernicious anemia patients and 117 expected deaths). In only 3 cases among the pernicious anemia patients was the cause of death identified with this disease.

When the causes of the 115 deaths were scrutinized, a curious fact emerged with regard to the incidence of cancer in general and cancer of the stomach in particular. The deaths from cancer numbered 21, as did the expected deaths from this cause. But the deaths from cancer of the stomach among the patients with pernicious anemia numbered 15, whereas the number expected was only 5. Drs. Mosbech and Videbræk have no explanation for this apparent liability of patients with pernicious anemia to die of cancer of the stomach, but they suggest that hereditary factors may play a part, for the achylia so often found in association with both pernicious anemia and cancer of the stomach occurs as a familial phenomenon, which is particularly common in families in which pernicious anemia occurs.

Late Results of Operations for Gallstones

What are the chances of permanent relief from biliary colic when it is treated surgically? To answer this question Drs. Svend Hansen and Gunnar Jörgensen have undertaken to follow the 556 patients who underwent operations for gallstones at the Surgical Department of the Sundby Hospital in the period 1938-1947. The immediate postoperative mortality was 8.6 per cent, a comparatively high death rate due to the large number of cases in which lesions of the more deeply seated biliary passages complicated the issue. During the later postoperative period there were 20 deaths, none of which was apparently due to gallstones. There were also 70 patients who could not

be traced. Among the 416 survivors, nearly all of whom were reexamined medically, the majority (64.9 per cent) had been treated by cholecystectomy alone but in the remaining 35.1 per cent more radical operations had been undertaken. There were 329 (79.1 per cent) who on reexamination had no complaints whatever and 54 (13 per cent) whose dyspeptic symptoms could not be referred to their earlier gallstones; 16 patients still suffered from gallstones, and 17 were subject to attacks of colic diagnosed as postoperative dystonia. The conclusions drawn from this study are that persistence of gallstones is the most important cause of postoperative difficulty and that little is to be gained from attempts to retain a functionally effective gallbladder.

The Declining Tuberculosis Death Rate

At the annual meeting of the Danish National Association Against Tuberculosis held early this year, Prof. Knud Faber referred with great satisfaction to the declining tuberculosis mortality and with much concern to the tuberculosis morbidity, whose decline is comparatively slow. In 1947 there were 3 deaths from tuberculosis per 10,000 inhabitants. In 1948 this rate was reduced to 2.5, and in 1949 it was down by 1.9, the lowest tuberculosis mortality on record in Denmark and probably the lowest in the whole world at the present time. Turning to the tuberculosis morbidity, Professor Faber pointed out that in 1948 there were as many as 3,351 new cases of tuberculosis, or 8 per 10,000 inhabitants. Among these 3,351 new cases there were as many as 2,658 with tubercle bacilli in the sputum or the yield of gastric lavage. The morbidity figures for 1947 and 1946 were slightly higher (8.5 and 10.1 per 10,000, respectively), and it is comforting to reflect that the morbidity is, or seems to be, high largely because the meshes of the net cast by antituberculosis diagnostic services in Denmark are so fine. Discovery of 1,011 of the 3,351 cases depended on environment and group investigations. Presumably most of these cases would have been overlooked in earlier days. Professor Faber struck an optimistic note with regard to the growing prevalence of BCG vaccination in Denmark and the adequacy of the provision of sanatorium and hospital beds for tuberculous patients.

Frequency of Benign Paroxysmal Heart Disease

Dr. W. Thune Andersen, who is at the head of the Medical Department of the Svendborg Central Hospital, made a special study of benign paroxysmal heart disease from Jan. 1, 1947 to March 1, 1948. The hospital admits patients with a wide variety of diseases, as the area it serves has no special hospital for neurologic, pediatric or epidemiologic cases. The 1,337 patients admitted during this period were examined with special reference to heart disease, all of them undergoing one or more electrocardiographic examinations, and being questioned about cardiac symptoms. Among these cases about 222 (or between 16 and 17 per cent) presented evidence of benign paroxysmal heart disease. They had subjective symptoms or objectively demonstrable electrocardiographic changes which appeared periodically without any obvious provocation, such as exertion. In other words, these electrocardiographic changes could be attributed to disturbances of the nervous mechanism of the heart and not to such organic disease as myocarditis or coronary sclerosis.

Among these 222 patients were 48 without any electrocardiographic evidence of heart disease. There were also 72 patients who had extrasystoles. Some patients had come to be regarded as neurasthenic and others as the victims of angina pectoris, for which unnecessarily severe restrictions had been imposed. In others the disease had been diagnosed as Graves' disease, partly because of a harmless goiter. These observations serve as a warning against casual diagnosis of heart disease.

Correspondence

ANGINA PECTORIS DURING DECUBITUS

To the Editor:—In THE JOURNAL of May 20 (**143**:225, 1950) appeared an article by Dr. Louis A. Soloff entitled "Angina Pectoris During Decubitus" with the subheading "Hitherto Unrecognized Manifestation of Cardiac Failure." I should like to comment on this article. In 1926 I advanced the theory that nocturnal shifts of blood and/or edema fluid play a role in the pathogenesis of cardiac asthma (nocturnal paroxysmal dyspnea) and that the seemingly miraculous results achieved through injection of posterior pituitary extract or an opiate are partly due to their effect of retaining fluid in the tissues (*Med. Klin.* **22**:1102 [July 16] 1926; *Zentralbl. f. inn. Med.* **49**:873 [Sept. 15] 1928). On the basis of these considerations I then attempted to prevent attacks of cardiac asthma by administration of mercurial diuretics with the intention of removing superfluous body water. Practical results were confirmed by all workers in this field, and this form of treatment became a standard procedure. One year later I discussed the combination of cardiac asthma and angina pectoris (*Wien. klin. Wchnschr.* **40**:1277 [Oct.] 1927). In this paper I stated: "In many a case of seemingly pure stenocardia, water balance may be disturbed in the same way as I had previously explained in cardiac asthma." This statement was based on the following observations: First, the occurrence of these attacks at night during rest in recumbent position; second, the phenomenon of "urina spastica" (comparable to the nocturia of patients with cardiac asthma) and, third and most important, the success that I had met with strict dehydration therapy in these patients. From the comment of Dr. Soloff one may infer that he made personal observations of the nocturnal attacks only in the fourth patient. There is a possibility that a change in the character of breathing was overlooked by other less experienced observers, especially if the patient did not complain of frank dyspnea. It is therefore not certain that the first 3 patients had pure angina pectoris during decubitus. Dr. Soloff concluded from the response to dehydration therapy in his cases that their attacks of angina pectoris were produced by excessive work placed on the heart by the sudden increase of fluid return to the heart. I believe that one cause of anginal nocturnal pain in these cases is the presence of congestion and/or transudate in the lungs. These constitute an obstacle to the free interchange of gases between air and capillaries in the lungs, causing the blood to carry less oxygen to the heart muscle. In addition, congestion in the lungs will give rise to hypertension in the lesser circulation including the right ventricle, into which the thebesian vessels empty. Consequently the pressure gradient between the coronary arteries and the thebesian vessels will be reduced, thus slowing and unfavorably influencing the coronary circulation. The systemic pressure may also be above normal level during an attack of angina pectoris but may not be able to compensate for the higher pressure in the right ventricle because of organic coronary disease or spasm. In summary, in our opinion it is not excessive work of the heart that produces the pain in these cases but rather the combination of poor oxygenation of the blood and impaired coronary blood flow. This accounts for the immediate excellent results one can see in such a case after administration of oxygen. Barach has explained the beneficial effect of breathing oxygen under pressure in pulmonary edema by pressure against the alveolar wall which is transmitted to the capillaries, thus relieving congestion. Today I believe that the effect of posterior pituitary extract may be explained by constriction of pulmonary capillaries that produces an effect similar to that of breathing oxygen under pressure. According to newer conceptions, narcotics bring about an increased release of antidiuretic hormone (Pickford, M., *Physiol. Rev.* **25**:573 [Oct.] 1945). May one assume that

the closely related vasopressor principle is likewise increased? It would be tempting to explain the never fully understood immediate objective result of morphine in pulmonary edema and cardiac asthma on the basis of this mechanism.

I wholeheartedly concur with Dr. Soloff that dehydration therapy with mercurial diuretics and salt free diet is the method of choice for the prevention of many cases of anginal pain during decubitus. Other measures which tend to prevent the pooling of latent edema fluid in the lungs are an early dinner without fluid, as Volhard first suggested, or elevation of the head of the bed by means of blocks.

F. Brunn, M.D., New York.

FRIGIDITY

To the Editor:—Having read the excellent paper of William S. Kroger and S. Charles Freed on "Psychosomatic Aspects of Frigidity" in The Journal, June 10, page 526, I wish to protest against the introduction of freudian jargon into such a matter. Many physicians regard Freud's ideas as an ingenious system of nonsense. Infantile sexuality and the Oedipus complex are the two basic features of Freud's system, without which freudian psychoanalysis is as bereft as chiropractic would be without the theory that vertebral pressure on nerve roots causes disease.

Hitler, a typical paranoid personality, hated Freud and his doctrines, referring to them as a monstrous piece of Jewish bluff. Freud, also a paranoid personality, but in another sphere, may be safely assumed to have hated the leader of the Nazis. Where Hitler tickled the vanity of a nation, Freud charged the breastwork of bourgeois stodginess. Freud was ignorant of the meaning of a scientific control, and his whole style of teaching was by platitudinous fiat. The belief that Freud based his conclusions on confessions from his consulting room is wrong; he sought for disclosures that he could force into his fantastic system.

Freudians will point out that the violence of this indictment is an impertinence to the memory of a great man and in any case argues a gross psychologic quirk. Which is the more impertinent: for me to call Freud's system delusional, or for the freudians to say that I suffer from latent homosexuality, anal eroticism and jealousy of my late father?

J. Markowitz, M.D., Associate Professor of Physiology, University of Toronto, Canada.

To the Editor:—The article by Kroger and Freed on "Psychosomatic Aspects of Frigidity" in The Journal, June 10, page 526, is deserving of high praise. Nevertheless, it contains statements I must challenge.

In the first paragraph on page 529, under "Diagnosis of Frigidity," the statement "The woman has absolutely no control over the muscles involved in these involuntary contractions" is contrary to the facts. Some women do and some do not have such control, just as some can and some cannot wiggle their ears. In each case there is some reason to believe that most could learn such control if they set out to do so.

I also criticize the last full sentence in the first column on page 528: "The 'normal' woman, during the sex act, should be passive and receptive of the penis." Here is the enthronement of personal prejudice as "normality" and "morality" that is the bane of most writing on sex and that the balance of the article has largely avoided. Moreover, it seems completely out of keeping with the implied premise of the entire article, namely, that it is "good" that the woman derive as complete gratification as possible from the sex act.

The quoted statement is even less acceptable if the golden rule is taken as the basic ethic of the sexual relationship. The act then becomes a truly cooperative enterprise wherein neither wishes to derive pleasure at the expense of the other. Creating a mutually enjoyable experience becomes the objective of each, and no rules apply except that whatever is done be safe for both and enjoyed by both. It is a mistake to identify either activity or aggressiveness with pleasure.

The act, so performed, consists of appeal and response, offer and acceptance, enticement, surprise, suspense, all achieved by constantly shifting aggressiveness and passivity, activity and relaxation on the part of each partner. When successful, the pleasure to each from pleasing the other becomes so intermingled with the pleasures of being pleased and of knowing that the partner wants to please, that they become indistinguishable. Each type of pleasure reacts with and reinforces the others to build up a potentially limitless shared ecstasy.

In like manner, and in these circumstances, the physical and the spiritual components of pleasure react on and reinforce each other, building to intensities of both that are beyond the comprehension of those who think in terms of how the "normal" person "should" perform the act.

I am convinced that, within the limitations imposed by the rights of potential offspring, the sole basis of sexual ethics is that same golden rule that is the only sound basis for any social relationship.

F. B. Exner, M.D., Seattle.

ALCOHOL AND ANGINA PECTORIS

To the Editor:—The article entitled "Alcohol in the Treatment of Angina Pectoris" by Drs. Russek, Naegele and Regan (The Journal, May 27, p. 355), on the lack of merit of alcohol in the treatment of angina pectoris, brings up the parallel question whether alcohol is useful in peripheral vascular disease. The wide use of this drug in peripheral vascular disease stems from its alleged inhibition of the development of atherosclerosis, its action as a vasodilator and its sedative effect. There are several indications that the drug is not effective in these three directions.

The work of Wilens (The Journal, Dec. 27, 1947, p. 1136) indicates that atherosclerosis is prevented only when the intake of alcohol is sufficient to entail general malnutrition. The vasodilator action of alcohol is capricious, being pronounced in some persons but not in others. In purely vasospastic states, alcohol may do away with symptoms of vasoconstriction but only at the expense of constant ingestion. In organic occlusion it may or may not be effective. If vasodilatation does occur, the blood may actually be diverted to areas where there is no obstruction. The action of alcohol on the brain is mainly to produce euphoria, the degree of sedation obtained varying greatly.

The total record, therefore, of the effectiveness of alcohol in vascular disease is not good. The prescription of alcohol in these disorders, which are often disabling and chronic, may lead to acute and chronic alcoholism in a large proportion of cases. It is distressing to see such harmful effects of a drug whose efficacy is doubtful. It would seem that alcohol should seldom be prescribed in peripheral vascular disease.

Edward A. Edwards, M.D., Boston.

BLACK TONGUE FROM AUREOMYCIN

To the Editor:—Although many reports of black tongue due to penicillin troches have appeared in the literature, I have seen no mention of black tongue due to aureomycin. I have observed 2 such cases which followed the use of aureomycin troches, and a third case which was due to the newer crystalline aureomycin. Aside from the questionable therapeutic efficacy of aureomycin troches, I think that the members of the medical profession should be well aware of their possible untoward effects.

Edward Phillips, M.D., Los Angeles.

Bureau of Legal Medicine and Legislation

MEDICOLEGAL ABSTRACTS

Charitable Hospitals: Immunity of Trust Funds from Judgment for Damages Due to Negligence.—The plaintiff sued Bradley Polytechnic Institute and certain individuals for damages for personal injuries alleged to have been caused by the negligence of employees of the institute. From a judgment of the trial court dismissing the suit as to the institute, which judgment was affirmed by the appellate court, the plaintiff appealed to the Supreme Court of Illinois.

The plaintiff was a student at Bradley and the individual defendants were instructors in its department of physical education. Bradley purchased a trapeze to be used in a college circus and while the plaintiff was practicing on the trapeze in preparation for the circus, it collapsed, allowing her to fall some twenty-five feet to a hardwood floor, where she suffered the injuries out of which this case arose.

Bradley Polytechnic Institute, now Bradley University, is a charitable institution organized in 1896 under the laws of Illinois as a corporation not for profit and the crucial question presented, said the Supreme Court, is whether charitable corporations are exempt from liability for the torts of their agents. The controversy, said the Supreme Court, revolves around the holding in *Parks v. Northwestern University,* 218 Ill. 381, 75 N. E. 991, where it was announced that the doctrine of respondeat superior did not extend to charitable institutions for the reasons, first, that if this liability were admitted, the trust fund might be wholly destroyed and diverted from the purpose for which it was given, thus thwarting the donor's intent, as the result of negligence for which he was in nowise responsible; second, that since the trustees cannot divert the funds by their direct act from the purposes for which they were donated, such funds cannot be indirectly diverted by the tortious or negligent acts of the managers of the funds or their agents or employees. It is conceded that Bradley Polytechnic Institute is a charitable corporation and that the doctrine of the Parks case is applicable to the instant case if the exemption from liability propounded in that decision is absolute. The plaintiff contends that the exemption is not absolute.

An analysis of the decisions in Illinois reveals that where plaintiffs have sought an unqualified recovery in tort against a charitable corporation, this and the appellate courts have uniformly followed the doctrine of the Parks case. However, where it appears from the pleadings that the charitable corporation is covered in its liability by insurance, the appellate courts have differed in their conclusions as to the extent of the exemption. In *Piper v. Epstein,* 326 Ill. App. 400, 62 N. E. (2d) 139, where it was alleged the defendant charity was protected by liability insurance, a judgment against the charity was reversed, the court holding the existence of the insurance did not enlarge the liability. The court there held the immunity of charitable corporations from liability based on negligence to be absolute. To the same effect is *Myers v. Y. M. C. A.,* 316 Ill. App. 177, 44 N. E. (2d) 755. But in the case of *Wendt v. Servite Fathers,* 332 Ill. App. 618, 76 N. E. (2d) 342, where the defendant charity was protected by liability insurance, the court held that the immunity granted in the Parks case was not absolute, that the defense could be waived, and that where there was liability insurance from which tort liability could be collected without impairment of the trust funds of the charity, the defense of immunity was not available. An examination of the Parks case revealed that the sole object of the doctrine there announced was to protect the trust funds of charities from depletion through the tortious conduct of their employees and agents. The holding in the Parks case clearly exempts the trust funds of a charity from any liability for the torts of its agents and employees. However, the immunity granted does not impose a disability to be sued in tort upon the charity and may be waived. The only logical construction would seem to be that liability does exist, but the doctrine of immunity is available as a complete defense of the trust funds against depletion by suits in tort. It is hard to reconcile the concept of absolute immunity with a power to create liability by waiver. Such a conclusion would, in effect, place it within the power of charities to confer or withhold jurisdiction of the courts to hear cases of this kind. That question was presented in *Marabia v. Mary Thompson Hospital,* 309 Ill. 147, 140 N. E. 836, and the court squarely held that jurisdiction was not dependent upon the waiver of the defense of immunity. That case further upheld a judgment capable of unqualified enforcement against the assets of the charity, on the basis that charitable immunity constituted no more than a defense, unavailing unless presented. The Parks case seemed to have provided a defense, only, and did not destroy the right of action.

The next inquiry would seem to be the extent of the defense granted. In no case has the question of whether nontrust funds of the charity are protected been presented to this court. There is nothing in the Parks case which indicates that there was either intention or reason to so extend the doctrine. It is apparent that the doctrine of the Parks case had for its sole object the protection of trust funds. It seems clear that liability was not destroyed by the decision but only abated to the extent and for the reasons set out, otherwise it would be hard to reconcile the holding in *Marabia v. Mary Thompson Hospital* that a judgment based on tort against a charitable institution is valid where the defense of immunity was not interposed.

As to the contention that this court should wholly repudiate the holding in the Parks case, it is apparent that the decision there is in harmony with the weight of authority in this country, was based upon adequate reasons of public policy and principles governing trust funds and has been firmly adopted in Illinois after full consideration of the contrary rule. No compelling reason is shown for abandonment of the rule now.

In the amended complaint the plaintiff alleged, among other things, that the defendant, Bradley Polytechnic Institute, is fully insured against loss or damage sustained by reason of any judgment against it for damages and that the funds held in trust by it for charitable purposes will not be impaired or diminished directly or indirectly by the maintaining of the action. Extending the rule as announced in the Parks case, it would seem that no violence is done to the decision there by allowing recovery, provided that trust funds or trust property are not subjected to the payment of any judgment obtained for tort liability. It is argued that this would give rise to a situation which would create liability only in the event the charitable institutions were insured, and it is suggested that liability is predicated upon the absence or presence of liability insurance. It is apparent that such is not the case, due to the fact that the question of insurance in no way affects the liability of the institution, but would only go to the question of the manner of collecting any judgment which might be obtained, without interfering with, or subjecting the trust funds or trust-held property to the judgment.

We are of the opinion there is no justification for absolute immunity if the trust is protected. From a careful analysis of the many cases, we are of the opinion that the law in Illinois is that the trust funds of charitable corporations are immune from liability for the torts of the corporation's employees and agents. Beyond that, the rule of respondeat superior is in effect. It appears that the trust funds of Bradley will not be impaired or depleted by the prosecution of the complaint. Accordingly the judgment of the trial court dismissing Bradley as a defendant was reversed.—*Moore v. Moyle, 92 N. E. (2d) 81 (Ill., 1950).*

CURRENT MEDICAL LITERATURE

AMERICAN

The Association library lends periodicals to members of the Association and to individual subscribers in Continental United States and Canada for a period of five days. Three journals may be borrowed at a time. Periodicals are available from 1939 to date. Requests for issues of earlier date cannot be filled. Requests should be accompanied with stamps to cover postage (6 cents if one and 18 cents if three periodicals are requested). Periodicals published by the American Medical Association are not available for lending but can be supplied on purchase order. Reprints as a rule are the property of authors and can be obtained for permanent possession only from them.

Titles marked with an asterisk (*) are abstracted below.

American Journal of Hygiene, Baltimore

51:265-400 (May) 1950

Transmission of Japanese B Encephalitis by Mosquitoes After Experimental Hibernation. H. S. Hurlbut.—p. 265.
Observations on Occurrence of Rickettsia Tsutsugamushi in Rats and Mites in Malayan Jungle. R. Traub, L. P. Frick and F. H. Diercks.—p. 269.
Influence of Dietary Pteroylglutamic Acid and APA Liver Extract on Survival and Growth of Nematode, Ascaridia Galli, in Chickens Fed Purified and Natural Diets. E. H. Sadun, C. K. Keith, M. J. Pankey and J. R. Totter.—p. 274.
Presence of Complement-Fixing Antibodies Against Brain Tissue in Sera of Persons Who Had Received Antirabies Vaccine Treatment. H. Koprowski and I. LeBell.—p. 292.
Serologic Studies of Corynebacterium Diphtheriae. G. H. Minzel and V. J. Freeman.—p. 300.
Distribution of Incubation Periods of Infectious Disease. P. E. Sartwell.—p. 310.
Application of Cascade Impactor to Studies of Bacterial Aerosols. L. S. Sonkin.—p. 319.
Frequency and Distribution of Salmonella Types Isolated from Man and Animals in Hidalgo County, Texas. J. Watt and T. DeCapito.—p. 343.
Studies on Chemotherapy of Filariasis. G. F. Otto and T. H. Maren.—p. 353.

American J. Obstetrics and Gynecology, St. Louis

59:949-1182 (May) 1950. **Partial Index**

Principles of Uterine Growth in Pregnancy. E. C. Gillespie.—p. 949.
*Simultaneous Renal Clearances of Urea and Uric Acid in Differential Diagnosis of Late Toxemias. L. C. Chesley.—p. 960.
Experimental Production of Irregular Shedding of Endometrium. W. H. Masters and D. T. Magallon.—p. 970.
Incorporation of Isthmus Uteri. D. N. Danforth and J. C. F. Chapman.—p. 979.
Abdominal Complete Hysterectomy. W. W. Curtis, E. Suckow and J. W. Huffman.—p. 989.
The Cervix in Pregnancy. C. E. Galloway.—p. 999.
Vulvovaginal Moniliasis. R. M. Campbell and M. H. Parrott.—p. 1005.
Pregnancy and the Adolescent. A. A. Marchetti and J. S. Menaker.—p. 1013.
Insensible and Total Weight Changes During Labor and Delivery and Gynecologic Operations. W. J. Dieckmann and F. Stout.—p. 1021.
*Gelfoam, Vaginal Smear and Biopsy in Diagnosis of Uterine Carcinoma. J. Rich, A. A. Angrist and F. Carpenter.—p. 1029.
Splenectomy During Pregnancy, with Report of 5 Cases and Review of Literature. T. W. McElin, R. D. Mussey and C. H. Watkins.—p. 1036.
Postoperative Cervical-Vaginal Healing in Relation to Postoperative Treatment. W. Bickers.—p. 1045.
*Development of Vaginal Cytology Laboratory: Its Precision and Significance. S. B. Gunsberg and D. A. Graham.—p. 1053.
Status of Membranes and Uterine Contraction Characteristics as Criteria for Clinical Success or Failure in Use of Pitocin by Continuous Intravenous Drip for Induction of Labor. S. R. M. Reynolds, S. Lubin, R. Waltman and others.—p. 1062.
Objective Evaluation of Hypnosis in Obstetrics: Preliminary Report. M. Abramson and W. T. Heron.—p. 1069.
Delayed Gastric Emptying Time in Labor. L. A. La Salvia and E. A. Steffen.—p. 1075.
Mechanism of Endometriotic Pain. L. B. Greentree.—p. 1082.
Effect of Vaginal *p*H on Wound Healing. F. C. Slater.—p. 1089.

Renal Clearances of Urea and Uric Acid.—Chesley made determinations of the simultaneous renal clearances of uric acid and urea in 285 pregnant women. Urea clearance averaged 119 per cent of mean normal (70 cc. per minute), while the uric acid clearance averaged 112 per cent of mean normal (15 cc. per minute) in 84 normal pregnant women. The uric acid/urea clearance ratio averaged 0.94 and varied from 0.45 to 1.50. The means, standard deviations, ranges and clearance ratios in 33 pregnant patients with uncomplicated hypertensive disease were almost identical with the observations in normal pregnant women. The clearances were depressed in almost equal degree in 3 pregnant patients with definite renal disease. The urea clearance may be decreased to a greater extent than is the uric acid clearance in severe renal disease. The urea clearance averaged 95 per cent, while the uric acid clearance averaged 52 per cent in 113 pregnant patients with preeclampsia. The clearance ratio averaged 0.54 and ranged from 0.25 to 1.05. The uric acid clearance dropped disproportionately in 7 pregnant patients with hypertensive disease and superimposed preeclampsia. The simultaneous clearances make a clearcut separation of preeclampsia, hypertensive disease and renal disease. The uric acid clearance is disproportionately depressed in preeclampsia, while both clearances are normal in uncomplicated hypertensive disease and both low in renal disease.

Absorbable Gelatin Sponge in Diagnosis of Uterine Carcinoma.—Rich and co-workers performed Papanicolaou's vaginal smear and Gladstone's absorbable gelatin sponge biopsy, in conjunction with formal biopsy, in 68 patients with conditions suggestive of carcinoma. In 17 of the 68 cases results were positive. All the Papanicolaou smears agreed with biopsy or surgical observations in these 17 cases except in 1 case of tubal adenocarcinoma, the surgical specimen of which showed that a positive smear could not reasonably be expected. No absorbable gelatin sponge biopsy was classified as false positive in all 68 cases, but 6 of these specimens were classified negative and 1 as suggestive of cancer in cases proved to be positive for uterine carcinoma. The Papanicolaou, Gladstone and biopsy results agreed and were negative throughout in 46 cases, all negative for carcinoma. The Papanicolaou smear technic and the absorbable gelatin sponge biopsy thus were observed to be worthy adjuncts in the diagnosis of carcinoma of the cervix. The latter biopsy procedure is superior from the point of view of time saving and can readily approach the accuracy of the vaginal smear. The vaginal smear and the Gladstone biopsy test may be combined in a single study by using the absorbable gelatin sponge for both preparations instead of using the cotton swab for the vaginal smears.

Vaginal Cytology Laboratory.—Gusberg and Graham studied the vaginal smears of 1,000 patients, 419 of whom were asymptomatic. A total of 1,039 sets of smears were taken. The accuracy of cytologic diagnosis was 97.7 per cent. Seventy-two patients had proved cancer and two were suspected of having cancer. Sixty-three of these 74 patients showed positive smears. Eight totally asymptomatic unsuspected cases of malignant growth were found among the 419 patients. Recurrent or residual malignant lesions were demonstrated after radiation therapy in 2 patients without clinical evidence of recurrence. Five other patients in this group had minor gynecologic symptoms, but these were of a nature which failed to arouse suspicion of cancer after pelvic examination, while carcinoma was disclosed by the cytologic method. Primary cytologic detection of carcinoma thus occurred in 15 of the 419 patients. It is possible to attain clinically significant accuracy by the cytologic method. One should not be satisfied with less than an accuracy of 90 per cent in cervical cancer. Most laboratories will achieve a lesser accuracy in endometrial cancer. Early or intraepithelial carcinoms of the cervix will not lag far behind invasive cancer in their susceptibility to detection by cell smears, because the histologic surface abnormality is identical in both. Factors which contribute notably to the precision of the work of a vag-

inal cytology laboratory are careful training of full time personnel, restriction of laboratory load to a level that can be reasonably handled, study of cervical as well as vaginal smears, repeated smear examination of patients with suspicious but not clearly diagnostic smears, complete biopsy control and adherence to rigid cytologic criteria.

American Review of Tuberculosis, New York

61:597-764 (May) 1950

*Para-Aminosalicylic Acid Treatment in Pulmonary Tuberculosis: Comparison Between 94 Treated and 82 Untreated Cases. Therapeutic Trials Committee of the Swedish National Association Against Tuberculosis.—p. 597.
Para-Aminosalicylic Acid (PAS) in Pulmonary and Extrapulmonary Tuberculosis. B. Carstensen.—p. 613.
Para-Aminosalicylic Acid Therapy in Intestinal Tuberculosis. I. Källqvist.—p. 621.
Febrile Reactions to Para-Aminosalicylic Acid. J. R. Davin and A. E. T. Rogers.—p. 643.
Spread or Exacerbation of Pulmonary Tuberculous Lesions as Result of Thoracoplasty. S. C. H. Yang and W. M. Lees.—p. 648.
Tuberculous Empyema: Clinical Course and Management: With Review of 146 Cases. J. Cuthbert.—p. 662.
Air Evacuation of Tuberculous Military Patients. W. H. Roper and J. J. Waring.—p. 678.
*Laboratory Diagnosis of Pulmonary Mycoses. N. F. Conant.—p. 690.
Susceptible, Resistant and Dependent Tubercle Bacilli Isolated from Patients Treated with Streptomycin. C. R. Owen, J. Adcock, R. M. Stow and others.—p. 705.
Streptomycin-Resistant Tubercle Bacilli: Incidence in Cases Treated with Different Dosage Schedules. W. E. Dye.—p. 719.
Duplication of Roentgenograms by Artificial Solarization: With Emphasis on Simple Standardized Technique. W. H. Roper.—p. 725.
Bacteriostatic and Bactericidal Effects of Products of Sarcoid Lymph Nodes on Tubercle Bacillus. S. R. Rosenthal.—p. 730.
Effect of Antihistaminic Drugs Upon Tuberculin Reaction. M. Graub and E. M. Barrist.—p. 735.
Kojic Acid as Inhibitor of Tubercle Bacilli. H. F. Lee, B. Boltjes and W. Eisenman.—p. 738.

Paraaminosalicylic Acid in Pulmonary Tuberculosis.—The therapeutic trials committee of the Swedish National Association Against Tuberculosis treated one group of 94 patients who had active pulmonary tuberculosis with paraaminosalicylic acid for three months, while a similar group of 82 patients served as controls. A total daily dose of 10 Gm. of paraaminosalicylic acid was administered with meals. Temperature, sputum amount, erythrocyte sedimentation rate, weight, differential count and content of acid-fast bacilli in smears of sputum were analyzed at regular intervals during the test period. Pulmonary roentgenograms were taken every month. The patients treated with paraaminosalicylic acid improved much more rapidly in all respects than did patients in the control group, and the results were statistically significant.

Laboratory Diagnosis of Pulmonary Mycoses.—According to Conant, fungi produce subacute or chronic infections which mimic tuberculosis closely. An accurate diagnosis of such diseases must depend on careful laboratory studies of materials obtained from patients, including a direct microscopic examination of sputum, cultures of sputum, pathogenicity tests of organisms isolated, and sensitivity and serologic tests. The following fungi may cause pulmonary disease: Actinomyces bovis, Nocardia asteroides, Coccidioides immitis, Blastomyces dermatitidis, Blastomyces brasiliensis, Histoplasma capsulatum, Cryptococcus neoformans, Candida albicans and Geotrichum candidum. The tissue phase of many of the fungi, as found in the sputum, is distinctive enough to allow a provisional diagnosis. Although most fungi causing pulmonary infections may be detected in fresh preparations of sputum, some fungi are more easily detected in stained smears. Such fungi include A. bovis, N. asteroides, C. albicans, G. candidum and H. capsulatum. India ink preparations are used to demonstrate the capsule which surrounds the budding, yeastlike cells of C. neoformans. A medium containing penicillin and streptomycin supports the growth of pathogenic fungi with two exceptions, A. bovis and N. asteroides, which are susceptible to penicillin and streptomycin and must be cultivated on other mediums. Most fungi known to cause pulmonary infections are pathogenic for one or more laboratory animals, such as mice, rabbits and guinea pigs. Many patients with fungous infections manifest sensitivity to the invading organism or its products, and intradermal injection of an appropriate antigen results in a tuberculin-type delayed reaction. The interpretation of the positive test is the same as that applied to the tuberculin test. The test becomes negative in the acutely ill patient as a result of anergy. A positive serologic test in coccidioidomycosis, histoplasmosis and blastomycosis, in which the complement fixation tests have been used most extensively, is indicative of an active, progressive disseminated infection. Such a test is therefore diagnostic. Cross reactions are known to occur between Blastomyces antigens and antiserum against H. capsulatum. Any serum tested should be tested against both Blastomyces and Histoplasma antigens.

Annals of Internal Medicine, Lancaster, Pa.

32:827-1014 (May) 1950

*Retrograde Arteriography in Diagnosis of Cardiovascular Lesions: II. Coarctation of Aorta. N. E. Freeman, E. R. Miller, H. B. Stephens and M. B. Olney.—p. 827.
*Two-Step Exercise Electrocardiogram: Test for Coronary Insufficiency. A. M. Master.—p. 842.
Blood Dyscrasias Secondary to Gold: With Case of Hypoplastic Anemia Cured by Splenectomy. H. J. L. Marriott and H. R. Peters.—p. 864.
*Clinical and Metabolic Effects of Progesterone and Anhydrohydroxyprogesterone in Rheumatoid Arthritis. L. H. Kyle and D. C. Crain.—p. 878.
Studies on Aging Heart: I. Pattern of Rheumatic Heart Disease in Old Age (Clinical-Pathological Study). P. Kaufman and H. Poliakoff.—p. 889.
Clinical Evaluation of Disodium Succinate, Including Report on Its Ineffectiveness in 2 Cases of Severe Barbiturate Poisoning and Some Toxicologic Notes on Other Succinate Salts. M. Zuckerbrod and I. Graef.—p. 905.
Streptococcal Antihyaluronidase Titers in Sera of Patients with Rheumatoid Arthritis and Glomerulonephritis. T. N. Harris, S. Harris, A. M. Dannenberg Jr. and J. L. Hollander.—p. 917.
Non-Infectious Nature of Guillain-Barré Syndrome with Possible Explanation for Albumino-Cytologic Dissociation. N. Reitman and K. Rothschild.—p. 923.
Acute Pericarditis: Report of 8 Cases in Which Etiology was "Non-Specific" or "Cryptic." A. W. Pohl.—p. 935.
Autopsy Incidence of Pulmonary Embolism in Coronary Heart Disease. T. J. Moran.—p. 949.
Respiratory Manifestations of Dorsal Spine Radiculitis Simulating Cardiac Asthma. D. Davis.—p. 954.

Retrograde Arteriography in Coarctation of Aorta.—Freeman and co-workers practiced retrograde arteriography in 15 patients in whom diagnosis of coarctation of the aorta was made on clinical observations. The injection of the radiopaque material was made into the left common carotid artery. Seventy per cent iodopyracet injection (diodrast®) proved to give the most satisfactory results. The examination was successful in 13 of the 15 patients. Extravasation of blood into the tissues led to the formation of a hematoma in 1 patient. There were no other complications. The exact location, degree and extent of the stenosis was visualized in 9 patients, and these observations were confirmed at operation. Unnecessary thoracotomy was avoided in 4 patients.

Two Step Exercise Electrocardiogram.—According to Master, diagnosis of heart disease is often complicated by the fact that objective evidence of organic disease cannot be obtained. In 37 per cent of his patients with angina pectoris proved to be due to coronary sclerosis the resting electrocardiograms were normal. This criterion was inadequate for diagnosis in these cases. The two step exercise test shows the response of the heart to effort. The status of the coronary circulation can be determined by this exercise electrocardiogram. The test consists of having the patient ascend and descend two 9-inch (23 cm.) steps a variable number of times in one and one-half minutes. The accustomed nature of the work allays apprehension or excitement. The exertion must be standardized and tables must give the number of climbs for age, weight and sex. The exercise electrocardiogram does not reflect the result of previous physical training. It is a reliable gage of cardiac function only if the standardized exercise is carried out with exactitude. Depression of the RS-T segment of over 0.5 mm. in any lead below the isoelectric level is considered positive. A change from an upright T wave to an isoelectric (flat) or inverted T wave is also an abnormal response except lead 3. The two step exercise test is of value when the resting electrocardiogram is normal but is unnecessary if the resting tracing is abnormal. Patients are not fatigued by the two step exercise. The electrocardiographic alterations, which are similar to those seen in a spontaneous attack of angina pectoris, are not produced by hyperventilation. Coronary insufficiency is practically excluded if two tests

are negative, a standard and then a double two step. The latter consists of a continuation of the climbs for another minute and a half. Coronary insufficiency exists if the electrocardiogram following the two step exercise test is positive. The insufficiency may be functional. Extreme mental or emotional tension may produce a positive electrocardiogram after the two step test. The differential diagnosis is not too difficult in the majority of cases. In a patient with anginal syndrome exercise tolerance may be the only objective evidence of myocardial impairment. The malingerer has a normal two step exercise electrocardiogram.

Progesterone in Rheumatoid Arthritis.—Kyle and Crain treated 5 men and 9 women having active rheumatoid arthritis with progesterone or anhydrohydroxyprogesterone for twelve to forty days. Fifty to 100 mg. of progesterone was administered daily by the intramuscular route; 2 patients were given injections of 150 and 200 mg. per day. Two hundred mg. was chosen as the minimal daily oral dose of anhydrohydroxyprogesterone. Definite clinical remission occurred in 1 patient on two separate occasions with each drug, but there was no decrease in sedimentation rate or significant increase in mobility of the affected joints. Moderate improvement took place in 3 other patients. A comparable remission followed the use of an inert placebo in 2 instances. Three patients were slightly improved symptomatically, but objective changes were minimal. The sedimentation rate approached normal in only 1 case. No relationship was found between clinical improvement and change in the results of numerous laboratory observations. Progesterone did not appear to be of any value in the treatment of rheumatoid arthritis.

Bulletin New York Academy of Medicine, New York

26:289-358 (May) 1950

Aspects of Streptomycin in Surgical Treatment of Pulmonary Tuberculosis. J. M. Chamberlain.—p. 289.
Euthanasia. A. L. Banks.—p. 297.
Classification and Treatment of Varicose, Post-Thrombotic and Arterial Venous Problems. G. H. Pratt.—p. 306.

Canadian Medical Association Journal, Montreal

62:423-528 (May) 1950. **Partial Index**

*Occurrence of Peritonitis During ACTH Administration. J. C. Beck, J. S. L. Browne, L. G. Johnson and others.—p. 423.
*Effect of Adrenocorticotropic Hormone (ACTH) on Beryllium Granulomatosis: Preliminary Report. B. J. Kennedy, J. A. P. Pare, K. K. Pump and R. L. Stanford.—p. 426.
ACTH in Atopic Dermatitis (Infantile Eczema) and Asthma. B. Kanee, J. H. B. Grant, J. Mallek and J. Eden.—p. 428.
Acute Disseminated Lupus Erythematosus. H. Orr.—p. 423.
Herniated Intervertebral Disc—Survey of Postoperative Results. H. H. Hepburn.—p. 437.
Present Status of Medical Treatment of Hyperthyroidism. D. M. Baltzan.—p. 439.
Surgical Treatment of Mitral Stenosis. G. Murray.—p. 444.
Treatment of Inflamed Skin. L. P. Ereaux.—p. 447.
Surgery of Prostatic Obstruction. J. M. Campbell.—p. 454.
Emergency Operative Treatment of Fresh Fractures. P. G. Costigan.—p. 457.
Slipping Rib Syndrome. K. M. Telford.—p. 463.
New Prothrombopenic Drug, Phenylindanedione. L. B. Jaques, E. Gordon and E. Lepp.—p. 465.
New Prothrombopenic Agent. A. Blaustein.—p. 470.
Pathogenesis of Secondary Anaemias. G. M. Brown.—p. 472.
Aerosol Therapy for Lung Abscess. H. E. Christie, M. Aronovitch and J. F. Meakins.—p. 478.
Two-Way T-Tube for Continuous Postoperative Perfusion of Biliary Tree. D. Macdonald.—p. 481.
Use of Radioactive Iodine in Diagnosis of Hyper- and Hypo-Thyroidism. W. F. Perry and J. P. Gemmell.—p. 484.

Peritonitis During Pituitary Adrenocorticotropic Hormone (ACTH) Therapy.—Beck and co-workers cite 2 cases of acute peritonitis that developed in patients who were undergoing treatment with pituitary adrenocorticotropic hormone (ACTH), one for Hodgkin's disease and the other for periarteritis nodosa. There was sufficient deviation from the usual symptoms of peritonitis to hinder the accurate diagnosis of this acute abdominal emergency. In the first patient there was no fever, a normal pulse rate, no leukocytosis and no rigidity. The features of the underlying condition were pain and the absence of peristaltic sounds. In the second patient there was no fever initially, there was a normal pulse rate and absence of muscle rigidity. The signs and symptoms were pain, absent peristaltic sounds, diminution in liver dulness and a probable rise in the white blood cell count. Attention should be drawn to the probable obscuring of certain signs and symptoms of acute abdominal emergencies occurring while patients are receiving pituitary adrenocorticotropic hormone. Whether the development of pneumococcic peritonitis in 1 case and perforation of an acute ulcer in the other were related to administration of the hormone is not certain. It is possible that the peritonitis may have been occasioned by bacterial spread from the pulmonary lesion, since Finland observed a bacteremia occurring during hormonal therapy given a patient with lobar pneumonia in the absence of the usual symptoms of septicemia. The ulcer may have been associated with thrombosis as a feature of the periarteritis nodosa. The absence of cellular reaction, which might be expected in a patient receiving pituitary adrenocorticotropic hormone, would not have encouraged healing; the absence of fibrin formation and adhesions that was observed at laparotomy were probably consequent on the administration of the hormone.

Effect of Pituitary Adrenocorticotropic Hormone (ACTH) on Beryllium Granulomatosis.—Kennedy and his associates administered pituitary adrenocorticotropic hormone (ACTH) to a man aged 27 who had been employed from September 1940 to April 1943 in a fluorescent-lamp-manufacturing plant where exposure to beryllium dust occurred. In July 1947 cough, dyspnea on exertion, anorexia, weight loss of 10 pounds (4.5 Kg.) and weakness began. A chest roentgenogram revealed a diffuse granulomatous process in both lungs with hilar node enlargement. The disease gradually progressed during the ensuing two years, as evidenced by dyspnea even on mild exertion and an increase in the extent of the pulmonary lesions. The patient was admitted to the McGill University Clinic on Jan. 21, 1950. After a two week control period treatment with pituitary adrenocorticotropic hormone, 25 mg. four times a day intramuscularly, was commenced Feb. 7, 1950 and continued for twenty-eight days. During this time the patient experienced an increased feeling of well-being, but increased aggressiveness and emotional instability necessitated discontinuance of the hormone therapy. During the first week of hormonal injections the pulmonary rales gradually disappeared; the lungs remained clear on auscultation thereafter. Concomitant with this change, the patient noted a decrease in dyspnea. Four flights of stairs were climbed without distress to the patient during the third week of medication, though previously climbing a few steps produced severe dyspnea. There appeared to be no clinical impairment of respiratory function at the time that treatment with the hormone was discontinued. Studies of pulmonary volume and maximum breathing capacity demonstrated progressive improvement. Roentgenograms demonstrated a gradual decrease in pulmonary markings, in density of nodules and in the size of hilar nodes. Ten days after cessation of pituitary adrenocorticotropic hormone therapy a few patchy densities reappeared, but the improvement in clinical status and respiratory function was not altered. Follow-up studies are necessary to determine the duration of the improvement.

Cancer Research, Chicago

10:255-334 (May) 1950

Chemical Studies on Transformation of Mouse Epidermis to Squamous-Cell Carcinoma: Review. C. Carruthers.—p. 255.
Effects of 2-Acetylaminofluorene on Dog. J. B. Allison, A. W. Wase, J. H. Leathem and W. W. Wainio.—p. 266.
Effects of Increased Pressure Upon Sarcoma 180. A. M. Arkin and K. Sugiura.—p. 272.
Effect of Partial Ablation of Bone Marrow and of Splenectomy on Hepatic Lesions Produced by 2-Acetaminofluorene. J. Stasney, K. E. Paschkis and A. Cantarow.—p. 283.
Histological Changes Produced by Single Large Injection of Radioactive Phosphorus (P^{32}) in Albino Rats and in C 3 H Mice. B. Grad and C. E. Stevens.—p. 289.
Neoplasms in Rats Treated with Pituitary Growth Hormone: I. Pulmonary and Lymphatic Tissues. H. D. Moon, M. E. Simpson, Choh Hao Li and H. M. Evans.—p. 297.
Ovary Transplanted to Spleen in Rats: Effect of Unilateral Castration, Pregnancy and Subsequent Castration. G. R. Biskind, B. Kordan and M. S. Biskind.—p. 309.
Effect of Added Dietary Tryptophane on Occurrence of Diethylstilbestrol-Induced Mammary Cancer in Rats. W. F. Dunning, M. R. Curtis and M. E. Maun.—p. 319.
Effect of Age on Regeneration of Rat Liver. N. L. R. Bucher and A. D. Glinos.—p. 324.

Journal of Bone and Joint Surgery, Boston

32-A:235-474 (April) 1950. **Partial Index**

Emergency Treatment of Bone and Joint Casualties. M. Cleveland. —p. 235.
Cauda Equina Tumors as Cause of Low-Back Syndrome. J. W. Toumey, J. L. Poppen and M. T. Hurley.—p. 249.
Evaluation of Myelography in Diagnosis of Intervertebral-Disc Lesions in Low Back. L. T. Ford and J. A. Key.—p. 257.
Contracture of Thumb Web. L. D. Howard Jr.—p. 267.
Dislocation of Hip Associated with Fracture of Neck of Femur. L. T. Peterson.—p. 274.
Clinical Analysis of 205 Cases of Malignant Bone Tumor. S. B. Prevo. —p. 298.
*Analysis of 59 Cases of Osteogenic Sarcoma with Survival for Five Years or More. B. L. Coley and C. C. Harrold Jr.—p. 307.
Fibrous Dysplasia of Bone. J. Valls, M. Polak and F. Schajowicz. —p. 311.
*Fibrous Dysplasia of Bone. L. W. Russell and F. A. Chandler.—p. 323.
Restriction of Bone Growth by Pins Through Epiphyseal Cartilaginous Plate. S. L. Haas.—p. 338.
Rocker-Foot Due to Congenital Subluxation of Talus. F. W. Hark. —p. 344.
Correction of Deformity and Prevention of Aseptic Necrosis in Late Cases of Slipped Femoral Epiphysis. C. L. Compere.—p. 351.
Lesions of Suprapatellar Plica. G. Fipkin.—p. 363.
Capsular Mechanism in Recurrent Dislocation of Shoulder. C. O. Townley—p. 370.
Prognosis in Idiopathic Scoliosis. I. V. Ponseti and B. Friedman. —p. 381.
*Radiation Scoliosis: Experimental Study. A. M. Arkin and N. Simon. —p. 396.
*Radiation-Induced Scoliosis: Case Report. A. M. Arkin, G. T. Pack, N. S. Ransohoff and N. Simon.—p. 401.
Acute Pain in Wrist and Hand Associated with Calcific Deposits: Report of 15 Cases. H. Seidenstein.—p. 413.

Osteogenic Sarcomas with Long Survival.—Coley and Harrold studied 59 cases of osteogenic sarcoma with five year survival observed at the Memorial Hospital of New York City among a total of 252 cases of the disease. The clinical records of the 59 patients, their roentgenograms, microscopic reports and types of treatment were examined to ascertain whether certain types of lesions offered a better prognosis. The authors were able to confirm that fibrosarcoma and chondrosarcoma (mainly the low grade "secondary" chondromyxosarcomas) metastasize later than osteogenic sarcoma. The microscopic appearance of tissue taken from the tumor affords the most reliable index of the rapidity of the growth and its tendency to early or late metastasis. The greatest majority of the patients who survived five years or longer had been treated surgically. The part played by irradiation in survival is not easy to estimate. Routine postoperative toxin treatment was abandoned several years ago, when it was realized that its use produced no improvement in the survival rate. There were no five year survivals in cases in which the lesion was located in the proximal end of the femur. Lobectomy was performed in 2 patients in whom pulmonary metastasis was discovered late in the course of the disease. One patient died eighteen months after the lobectomy, and 61 months after amputation. The other is living and free from evidence of disease, three years after the lobectomy and eight years after the amputation. The tumors were both low grade chondrosarcomas. The authors hope to dispel the prevalent attitude that this disease is uniformly fatal and that therapy is so ineffective as to obviate the need for early diagnosis and prompt treatment.

Fibrous Dysplasia of Bone.—The term fibrous dysplasia has been employed in recent years to designate certain types of osseous changes that may be either limited to a solitary focus (monostotic fibrous dysplasia) or distributed in multiple areas (polyostotic fibrous dysplasia). Russell and Chandler compare the clinical, roentgenographic and pathologic aspects of these two types of fibrous dysplasia and of Albright's syndrome, to which they may be related. They have observed during the past three years 7 patients with solitary osseous lesions, 3 with two or more defects and 1 with widespread changes, precocious puberty and areas of dermal pigmentation. Nine of the 11 patients were between 6 and 16 years of age; two were 37 and 38 years of age. The long bones of the lower extremity were most commonly involved. Pain was a symptom in all. The term fibrous dysplasia was introduced by Lichtenstein in 1938, but various other terms have been applied to similar or identical lesions whose basic morphology includes replacement of cortical and cancellous bone and marrow by fibrous connective tissue containing varying amounts of imperfect cancellous bone. The roentgenograms of the osseous lesions show either cystic or a ground glass appearance. The cause and disease basis are obscure. The diagnosis may sometimes be based on results of clinical and roentgenographic examination, but often a biopsy is necessary to differentiate the disease from other conditions. Treatment consists in reduction and immobilization of pathologic fractures, correction of deformities and surgical excision of painful lesions, whenever possible.

Radiation Scoliosis Produced Experimentally.—Arkin and Simon show that structural scoliosis can be produced in the spines of rabbits by irradiating the vertebrae asymmetrically. The resulting unequal bone growth yields wedging of the vertebral bodies with the lesser height toward the irradiated side. A single dose of 1,000 r is required to induce definite wedging in the spines of young rabbits.

Scoliosis Induced by Radiation.—Arkin and his associates cite a school girl, aged 13, in whom curvature of the spine had developed gradually over a period of years. When she was about 2 years of age, she received preoperative and postoperative irradiations for embryonal carcinosarcoma of the kidney (Wilms' tumor). The scoliosis in this case conforms to the deformity which would be expected if the growth of the epiphyses on the left side of the lumbar bodies had been retarded. The irradiation which the patient received at the age of 19 months was directed to the left side of these vertebrae. It is practically impossible to compute accurately the difference in radiation dosage in the left and right sides of the involved vertebrae. It is reasonable to assume that the radiation from each of the three fields affected the left side of the spine substantially more than the right.

Journal of Clinical Investigation, Cincinnati

29:381-490 (April) 1950

Metabolic Changes Associated with Administration of Salt-Poor Human Serum Albumin in 2 Cases of Infectious Hepatitis. W. Parson, H. S. Mayerson, A. G. C. White and others.—p. 381.
Effect of Bacitracin on Renal Function. J. H. Miller, R. K. McDonald and N. W. Shock.—p. 389.
Renal Mechanism for Urate Excretion in Man. R. W. Berliner, J. G. Hilton, T. F. Yü and T. J. Kennedy Jr.—p. 396.
Effects of Acute Reduction in Blood Pressure by Means of Differential Spinal Sympathetic Block on Cerebral Circulation of Hypertensive Patients. S. S. Kety, B. D. King, S. M. Horvath and others.—p. 402.
Effects of Dihydroergocornine on Cerebral Circulation of Patients with Essential Hypertension. J. H. Hafkenschiel, C. W. Crumpton, J. H. Moyer and W. A. Jeffers.—p. 408.
Use of Artificial Kidney: I. Technique. J. P. Merrill, G. W. Thorn, C. W. Walter and others.—p. 412.
*Id.: II. Clinical Experience. J. P. Merrill, S. Smith III, E. J. Callahan III and G. W. Thorn.—p. 425.
Effect of Dihydroergocornine on Pulmonary Response to Methacholine and Histamine in Subjects with Bronchial Asthma. J. J. Curry, J. E. Fuchs and S. E. Leard.—p. 439.
Effects of Acute Reduction of Cardiac Output on Renal Circulation of Dog. R. M. Berne and M. N. Levy.—p. 444.
Nitrogen Balance on Rice Diet. E. Peschel and R. L. Peschel.—p. 455.
Effect of Pituitary Growth Hormone in Dwarfism with Osseous Retardation and Hypoglycemia and in Cretin Treated with Thyroid. R. A. Lewis, R. Klein and L. Wilkins.—p. 460.
Neurologic Evaluation of Cutaneous Histamine Reaction. I. S. Cooper. —p. 465.
Effect of Human Plasma on Anticoagulant Activity of Heparin. C. L. Conley, R. C. Hartmann and J. S. Lalley.—p. 470.
Binding of Thiocyanate to Albumin in Normal Human Serum and Defibrinated Blood with Reference to Determination of "Thiocyanate Space." I. H. Scheinberg and H. J. Kowalski.—p. 475.
Observations on Effect of Cigarette Smoking on Fusion Frequency of Flicker. P. S. Larson, J. K. Finnegan and H. B. Haag.—p. 483.
Studies on Proteolytic Enzyme System of Blood: I. Inhibition of Fibrinolysin. J. H. Lewis and J. H. Ferguson.—p. 486.

Clinical Experience with Artificial Kidney.—Merrill and co-workers employed an artificial kidney of the Kolff type in 60 instances in the treatment of a widely differing and complex group of 45 patients between the ages of 3½ and 79 years. Methods of controlling tonicity of the bath fluid and the virtual elimination of problems of clotting, hemolysis and pyrogen reaction added greatly to the efficacy and safety of the procedure. Results did not warrant definite conclusions as to the efficacy of artificial kidney in the general treatment of renal disease but seemed to indicate that the use of an artificial kidney is a feasible method for the removal of specific diffusible substances from the blood by continuous dialysis and that the risk of its application is small enough to give the procedure clinical importance in the management of acute, reversible renal

insufficiency, particularly when complicated by spontaneous potassium intoxication. Preliminary trials suggest its value in other clinical conditions, such as hyponatremia and hypernatremia, chronic uremia and shocklike states, such as severe hypotension after major surgical intervention, congestive heart failure and pulmonary edema, in which the removal or addition of diffusible substances may be indicated. It may be used as an investigative tool in such unrelated clinical states as acute yellow atrophy and gout. The removal of barbiturates by dialysis has obvious therapeutic possibilities in the patient whose toxicity has progressed to the stage of shock and oliguria. Observations which were made incident to dialysis on urea and amino acid metabolism and on circulatory homeostasis suggest that the artificial kidney may prove to be an important investigative tool in elucidating physiologic mechanisms.

Journal of Gerontology, Springfield, Ill.

5:97-202 (April) 1950

Cytochemical and Cytologic Features of Senile Keratosis. E. V. Cowdry and W. Andrew.—p. 97.
Calcium and Elastin in Human Arteriosclerosis. A. I. Lansing, M. Alex and T. B. Rosenthal.—p. 112.
Treatment of Senescence in Female Rats with Sex and Thyroid Hormones. V. Korenchevsky, S. K. Paris and B. Benjamin.—p. 120.
Problems of Sampling and Interviewing in Studies of Old People. R. J. Havighurst.—p. 158.
Case Study Comparisons of Successful and Problem Old People. S. L. Pressey and E. Simcoe.—p. 168.

Journal of Infectious Diseases, Chicago

86:105-204 (March-April) 1950. **Partial Index**

Action of Drug Combinations on Plasmodium Lophurae in the Chick. J. Reilly, G. Chen and E. M. K. Geiling.—p. 105.
Comparison of Actions of Chloramphenicol (Chloromycetin) and Penicillin G Against Relapsing Fever in Mice. P. E. Thompson, M. C. Dunn and C. V. Winder.—p. 110.
Viscosimetric Measurement of Streptococcal Antihyaluronidase: Comparison with Titers Obtained by Turbidimetry. T. N. Harris, W. B. Abrams and S. Harris.—p. 122.
Attempts to Cure Parakeet Psittacosis Carriers with Aureomycin and Penicillin. S. F. Quan, K. F. Meyer and B. Eddie.—p. 132.
Action of *d*-Tubocurarine Chloride and Other Curarizing Drugs on Growth of Certain Microorganisms. L. I. Orlandi, D. F. March, E. H. Ludwig and J. M. Slack.—p. 136.
Toxic and Allergic Manifestations Caused by Tissues and Fluids of Ascaris. II. Effect of Different Chemical Fractions on Worm-Free Infected and Sensitized Guinea Pigs. J. F. A. Sprent.—p. 146.
Antigenicity of Cell-Free Staphylococcal Coagulase. C. H. Rammelkamp Jr., G. F. Badger, J. H. Dingle and others.—p. 159.
Spread of Group A Streptococci in Barracks of Naval Personnel. E. T. Jarrett, K. P. Egner and V. Thomas.—p. 164.
Pneumotropic Pasteurella of Laboratory Animals. E. Jawetz.—p. 172.
Field Trial of Shigella Flexneri III Vaccine. III. Coproantibody Studies. R. S. Gordon, I. L. Bennett Jr. and L. A. Barnes.—p. 197.
Maternal Diet and Influence of Thiamine Deficiency on Theiler's GD-VII Encephalomyelitis In Mice. K. H. Maddy, W. L. Davies, W. L. Pond and others.—p. 202.

Journal of Investigative Dermatology, Baltimore

14:305-390 (May) 1950. **Partial Index**

*Effect of Gelatin on Fragile Finger Nails. T. L. Tyson.—p. 323.
Torulosis: Review of Cutaneous and Adjoining Mucous Membrane Manifestations. E. P. Cawley, R. H. Grekin and A. C. Curtis.—p. 327.
Immunity of Adult Scalp to Infection with Microsporum Audouini. A. M. Kligman and D. Ginsberg.—p. 345.
Experimental Controls in Clinical Dermatologic Investigation. D. M. Pillsbury, M. C. Zimmerman and G. D. Baldridge.—p. 359.
Unusual Virus Isolated from Case of Pemphigus Erythematodes. O. Felsenfeld, P. B. Szanto and C. L. Byrd Jr.—p. 373.
Physiological Studies on Genus Microsporum. E. R. Giblett and B. S. Henry.—p. 377.
Bone Marrow Changes in Mycosis Fungoides. R. F. Tilley and D. C. Smith.—p. 387.

Effect of Gelatin on Fragile Finger Nails.—Tyson cites a patient with a chronic low grade rheumatic fever who was given gelatin by mouth to relieve her muscular weakness. She had been troubled for years with fragility of the finger nails. After three months of gelatin therapy the nails became practically normal. After this chance observation the author studied 12 patients with soft, peeling, easily broken finger nails persisting one to fifteen years. Dietary deficiency was not detected. Six had taken thyroid without benefit, and most of them had received local treatment without improvement. All the women had used finger nail polish. They all showed some thickening of the nail plate with loss of surface luster and separation at the free end into laminas which tended to peel off, leaving a frail, irregular, jagged edge. The patients were given 7 Gm. of a commercial gelatin dissolved in water or fruit juice once a day. In 10 of these 12 patients the nails assumed a completely normal appearance after three months of treatment. Several patients reported improvement in growth of hair and eyebrows.

Journal-Lancet, Minneapolis

70:159-202 (May) 1950

Right Heart Catheterization in Acyanotic Congenital Heart Disease: Comparative Evaluation of Diagnosis by Clinical, Roentgenological and Catheterization Studies in 40 Patients. F. H. Adams, J. W. LaBree and H. M. Stauffer.—p. 159.
Myocardial Failure in Children with Brain Involvement: 2 Cases: Male of 3 Years with Encephalitis; Male of 7 Years with Hemiplegia. L. F. Richdorf.—p. 166.
Poliomyelitis: Outbreak in North Dakota in 1949. L. G. Pray, M. H. Poindexter, W. E. LeBien and D. G. Jaehning.—p. 171.
Hematocolpos (with Report of Case). C. J. Baumgartner and R. B. Tudor.—p. 178.
Strumpel-Marie Encephalitis: Convulsive Disorder in Children Followed by Hemiplegia of Unknown Etiology. R. B. Tudor.—p. 179.
Case of Rocky Mountain Spotted Fever in Mankato. R. N. Andrews.—p. 181.
Diagnosis and Treatment of Bronchial Asthma in Pediatric Practice. J. Glaser.—p. 183.
Chronic Intussusception in Infancy. H. Medovy.—p. 188.
Vascular Occlusion in Infancy. S. Israels and D. Stein.—p. 190.
Tay-Sachs' Disease—Amaurotic Family Idiocy. R. B. Tudor.—p. 191.
Treatment of Rheumatoid Arthritis and Other Rheumatic Conditions with Salicylate and Para-Aminobenzoic Acid (Study of 125 Patients). R. T. Smith.—p. 192.

Journal of Neurosurgery, Springfield, Ill.

7:185-288 (May) 1950

Problem of Glioblastomas. E. Sachs.—p. 185.
*Epidermoids: Clinical Evaluation and Surgical Results. F. C. Grant and G. M. Austin.—p. 190.
Surgical Treatment of Arnold-Chiari Malformation in Adults: Explanation of Its Mechanism and Importance of Encephalography in Diagnosis. W. J. Gradner and R. J. Goodall.—p. 199.
*Electroencephalogram in Subdural Hematoma, with Review of Literature and Presentation of 7 Cases. G. W. Smith, W. H. Mosberg, E. T. Pfeil and R. H. Oster.—p. 207.
Localization of Cord Tumors by Electromyography. P. F. A. Hoefer and S. M. Cohen.—p. 219.
Meningiomas of Cerebellar Fossa. A. D'Errico.—p. 227.
Transabdominal Extraperitoneal Section of Obturator Nerve Trunk. P. H. Harmon.—p. 233.
Ventriculomastoidostomy: Technique and Observations. W. A. Nosik.—p. 236.
Results of 300 Pituitary Adenoma Operations (Prof. Herbert Olivecrona's Series). L. Bakay.—p. 240.
Clinical Uses of Artificial Cerebrospinal Fluid. R. C. Lewis and K. A. C. Elliott.—p. 256.
Longevity of Patients with Glioblastoma Multiforme. M. G. Netsky, B. August and W. Fowler.—p. 261.
Muscle Weakness and Wasting in Sciatica Due to Fourth Lumbar or Lumbosacral Disc Herniations. E. Kugelberg and I. Petersén.—p. 270.

Epidermoids: Clinical Evaluation and Surgical Results.—Grant and Austin report on 22 epidermoids. The term cholesteatoma is synonymous with pearly tumor and epidermoid. The majority of pathologists believe that the cholesterin-containing masses arising in the petrous portion of the temporal bone are unrelated to true epidermoid tumors. The 22 cases reviewed by the authors occurred among a total of 1,952 brain tumors. The authors divide their cases into intradural, of which there were 15, and extradural, of which there were 7. Headache and visual disturbances in the form of blurred vision, diplopia or blindness were the most frequent symptoms. All 7 extradural epidermoids were diagnosed correctly by roentgenography before operation. Their sharp punched-out character with frequently associated white border is almost pathognomonic. The intradural group usually offers nothing to suggest their epidermoid character. The cases under consideration here were diagnosed preoperatively as probable tumors. At operation, these tumors are readily identified by their pearly sheen and avascular character. The case of intradural tumor described in detail shows the slow development and the typical symptomatology of these tumors when located in the cerebellopontine angle. Although this tumor was only partially removed in 1936, this woman has been able to live a relatively normal life for the past eleven years. Microscopically epidermoids show four concentric layers: stratum durum, an outer acellular layer responsible for the pearly sheen; stratum granulosum, a

cuboidal to stratified epithelium; stratum fibrosum, which are layers of homogeneous material with no evidence of cell boundaries, and stratum cellulosum, which makes up the bulk of the tumor and consists of polyhedral cells. The commonest sites of the intradural group were the cerebellopontine angle and the parapituitary region. In this group 5 of 15 died. No deaths occurred among the patients with extradural tumors.

Electroencephalogram in Subdural Hematoma.—Smith and collaborators believe that the electroencephalograph offers a new approach to the localization of a subdural hematoma. They report 7 proved cases of unilateral subdural hematoma, which show electroencephalographic patterns that correlate with the operative observations. After surgical removal of the hematoma the abnormal electroencephalograms progressively improved and 6 patients returned to normal over a period of one to five months. In 3 of the reported cases the patient had ipsilateral hemiparesis and in 4 a contralateral dilated pupil. In spite of these misleading signs it was possible to predict the location of the hematoma by the characteristic electroencephalographic observations, lowering of the amplitude and random low voltage slow waves over the affected hemisphere. Cases 1 to 5 were uncomplicated subdural hematomas; the preoperative tracings in these are representative of "pure" subdural hematomas. In case 6 there was a severe contusion and laceration of the brain, but the subdural hematoma was so massive that the characteristic electroencephalographic pattern dominated in the tracing. The electroencephalogram is to be used only as an adjunct to clinical observations. It cannot replace neurologic examination and observation.

Journal of Urology, Baltimore

63:773-946 (May) 1950. **Partial Index**

Renal Trauma: Conservative Management. E. J. McCague.—p. 773.
Nephralgia and Associated Lower Quadrant Pain. E. L. Young, W. E. Wilson Jr. and R. Nelson.—p. 778.
Stone in Ureteral Stump Left When Nephrectomy is Done. G. R. Livermore.—p. 786.
Primary Amyloidosis of Bladder. F. L. Senger, M. E. Thomley and R. G. McManus.—p. 790.
Vesical Calculus with Report of Gigantic Stone in Female Bladder. W. N. Wishard Jr. and M. H. Nourse.—p. 794.
Surgery of Dilated Bladder. G. W. Fish.—p. 802.
Physiologic Treatment of Urinary Stress Incontinence. A. H. Kegel and T. O. Powell.—p. 808.
Biological Behavior of Transitional Cell Papilloma of Bladder. C. L. Deming.—p. 815.
Total Cystectomy for Cancer of Urinary Bladder. R. C. Graves, W. T. Buddington and R. S. Thomson.—p. 821.
Pelvic Lymphadenectomy and Total Cystectomy in Treatment of Carcinoma of Bladder. W. S. Kerr Jr. and F. H. Colby.—p. 842.
Exstrophy of Bladder: Review of 70 Cases. C. C. Higgins.—p. 852.
Upper Urinary Tract Following Uretero-Intestinal Anastomosis for Bladder Tumors. A. L. Dean.—p. 858.
Late Sequelae Following Transplantation of Ureters into Bowel: Report of 2 Cases. H. L. Kretschmer.—p. 863.
Transvesical Repair of Vesicovaginal Fistula. S. Immergut and Z. R. Cottler.—p. 865.
Effect of Vasectomy upon Incidence of Epididymitis After Prostatectomy: Analysis of 810 Operations. S. S. Schmidt and F. Hinman.—p. 872.
Total Avoidance of Postoperative Bladder Irrigation: Results and Conclusions from 200 Consecutive Cases. W. Stegeman.—p. 882.
*Further Experiences with Operation for Cure of Peyronie's Disease. O. S. Lowsley and W. H. Boyce.—p. 888.
Abacterial Pyuria, Acute and Chronic: Its Progress and Treatment. C. Aberhart.—p. 903.

Operation for Peyronie's Disease.—Lowsley and Boyce describe and illustrate an operative technic for plastic induration of the penis (Peyronie's disease), which was developed by Lowsley and first described by him in 1943. As originally performed, after removal of the fibrous tissue Buck's fascia was reapproximated by a continuous surgical gut suture. Later the operation was modified by the insertion of a free fat transplant to fill the defect. Further improvement in the technic —namely, not allowing the two edges of Buck's fascia to approximate one another but having part of the fat intervening—has eliminated the distortion due to excessive scar formation in the approximated fascial planes. Other improvements were: sprinkling of sulfanilamide powder over the wound and placing gauze beneath the tourniquet to alleviate the effects of the tied tourniquet. This procedure was suggested by an orthopedic surgeon, who had observed temporary anesthesia of the glans as the result of a too tightly drawn and unprotected tourniquet. Of the 17 patients undergoing operation without the use of fat, 9 were cured, 4 greatly improved, 1 slightly improved and 1 unimproved; 2 could not be followed. Of the 33 in whom fat was used for repair, 20 were cured, 6 greatly improved, 4 slightly improved and 1 unimproved; 2 were lost to follow-up. The best results were obtained in cases in which the fibrous tissue occupied a medial position dorsal or ventral to the corpora cavernosa, the poorest results in cases in which the plaques extended to the lateral surface. There were only 11 of these latter cases, but they accounted for 5 of the 8 instances of postoperative drainage from the wound, and for 6 of the 7 reoperations. Radiation should not be used in Peyronie's disease. It does no good. All radiation produces degenerative changes which interfere with the cure. The authors strongly recommend that no preliminary radiation of any sort be used in Peyronie's disease. The fact that 39 of 50 patients were either cured or greatly improved by the operation encourages the authors to recommend this form of treatment.

Kansas Medical Society Journal, Topeka

51:225-272 (May) 1950

Treatment of Far Advanced Malignancy: Report of 4 Cases in Children. G. M. Tice.—p. 225.
Diagnosis of Chronic Obliterating Peripheral Arterial Diseases. F. S. Morest.—p. 230.
Examination of Abdomen: Diagnostic Maneuver, Directional Palpation, to Determine Site of Localized Inflammatory Disease in Abdominal Cavity. P. Cooper and A. H. Hinshaw.—p. 234.
Effect of Aureomycin in Herpes Simplex Virus Infection. S. Zelman and R. H. O'Neil.—p. 237.
Tuberculosis in Child. J. L. Sitterley.—p. 239.

Medicine, Baltimore

29:99-168 (May) 1950

Relationship of Demyelinating Diseases to Allergic Encephalomyelitis. L. C. Kolb.—p. 99.
Antifibrillatory Drugs. J. R. DiPalma and J. E. Schults.—p. 123.

New England Journal of Medicine, Boston

242:601-640 (April 20) 1950

Splenectomy in Blood Dyscrasias. C. S. Welch and W. Dameshek.—p. 601.
Acute General Edema of Brain in Children with Head Injuries. W. Pickles.—p. 607.
Abdominal Angina. L. G. Berman and F. R. Russo.—p. 611.
Antirheumatic Activity of Ascorbic Acid in Large Doses: Preliminary Observations on 7 Patients with Rheumatic Fever. B. F. Massell, J. E. Warren, P. R. Patterson and H. J. Lehmus.—p. 614.
Why I am in Favor of Compulsory Health Insurance. C. Frothingham. —p. 616.
Why I am Opposed to Compulsory Health Insurance. L. S. McKittrick, —p. 617.
New Pathological Concepts. S. L. Robbins.—p. 618.

New Jersey Medical Society Journal, Trenton

47:145-190 (April) 1950

This Last Best Chance on Earth. C. B. Shisholm.—p. 148.
Trichinosis with Myocardial and Pulmonary Involvement: Case Report. H. H. Goldberg and D. Biber.—p. 152.
Recent Advance in Surgical Treatment of Pulmonary Tuberculosis. G. N. J. Sommer Jr.—p. 154.
Recurrent Aphthous Stomatitis Treated with Aureomycin. M. Braitman. —p. 160.
Dicumarol in Treatment of Heart Disease Complicated by Pregnancy. H. M. Schneider.—p. 161.
Cough-Pain Sign in Acute Superficial Thrombophlebitis. E. D. Lawrence. —p. 164.
Avulsion of Lower Biceps Brachii Tendon. T. Schlesinger.—p. 166.
Unusual Reactions with Antabuse: Report of 3 Cases. R. S. Garber and R. E. Bennett.—p. 168.
Calcification of Prepatellar Bursa. H. M. Babbitt.—p. 170.
Standard Nomenclature of Diseases and Operations. J. L. Balk, E. Klosk and A. Bernstein.—p. 171.

North Carolina Medical Journal, Winston-Salem

11:165-224 (April) 1950

SYMPOSIUM ON THROMBOPHLEBITIS AND PHLEBOTHROMBOSIS

Causes and Prevention of Thrombophlebitis and Phlebothrombosis. J. T. Kerr.—p. 165.
Problem of Thrombophlebitis and Phlebothrombosis from Medical Standpoint. E. S. Orgain.—p. 167.
Surgical Treatment of Thrombophlebitis and Phlebothrombosis of Lower Extremities. H. H. Bradshaw and F. Hightower.—p. 172.
Principles of Surgical Treatment of Sarcoma. R. W. Postlethwait and H. H. Bradshaw.—p. 180.
Etiology and Treatment of Acrodynia with Report of 7 Cases. C. G. Watkins.—p. 188.
Fractures of Lower End of Humerus in Children. R. B. Raney.—p. 192.
Mold Arthroplasty of Hip. H. Winkler.—p. 196.
Neuropsychiatry in Private Practice. R. L. Garrard.—p. 200.

Pediatrics, Springfield, Ill.

5:765-908 (May) 1950

Growth: Its Significance in Medicine Viewed as Human Biology. A. H. Washburn.—p. 765.
*Retrolental Fibroplasia (II. Encephalo-Ophthalmic Dysplasia): Study of 66 Cases. W. R. Hepner, A. C. Krause and H. E. Nardin.—p. 771.
Simplification of Drug Dosage Calculation by Application of Surface Area Principle. J. D. Crawford, M. E. Terry and G. M. Rourke. —p. 783.
*Congenital Megacolon: Report of 3 Cases of "Obstructive" Type Treated by Resection of Dilated Segment in Contrast to Resection of Distal Narrowed Segment. J. A. Ritter, H. R. Hawthorne and H. N. Metzger.—p. 791.
Serum Iron and Iron-Binding Capacity of Serum in Children with Severe Mediterranean (Cooley's) Anemia. C. H. Smith, T. R. C. Sisson, W. H. Floyd Jr. and S. Siegal.—p. 799.
Follow-Up Studies in Boy with Mixed Adrenal Cortical Disease. L. I. Gradner, R. C. Sniffen, A. S. Zygmuntowicz and N. B. Talbot. —p. 808.
Serum Mucoproteins in Children in Health and Disease with Special Reference to Rheumatic Fever. V. C. Kelley, R. A. Good and I. McQuarrie.—p. 824.
Erythema Bullosum Malignans Following Dilantin Therapy. G. Heller and M. Sloane.—p. 836.
Case Fatality in Infants and Children with Pertussis, 1942-1946. J. L. Kohn, A. E. Fischer and H. H. Marks.—p. 840.
Treatment of Lead Encephalopathy with BAL (2,3-Dimercaptopropanol). J. M. Ennis and H. E. Harrison.—p. 853.
Relationship of Ability to Breast Feed and Maternal Attitudes Toward Breast Feeding. N. R. Newton and M. Newton.—p. 869.
Observations on Pituitary-Adrenal Response to Epinephrine (Eosinophil Depression Test). F. P. White and L. E. Sutton Jr.—p. 876.
Herpes Simplex Virus Not Etiologic Agent of Recurrent Stomatitis. K. Dodd and I. Ruchman.—p. 883.

Retrolental Fibroplasia.—Hepner and associates made a survey of all infants with retrolental fibroplasia seen at the clinics of the University of Chicago. In 92 per cent of the 66 cases of this condition the infants were born prematurely. No patients with retrolental fibroplasia were born at the Chicago Lying-in Hospital before 1937. The incidence of retrolental fibroplasia at the Chicago Lying-in Hospital from 1937 through 1945 was 0.8 per cent of all survivors weighing less than 1,600 Gm. at birth; from 1946 through 1948, the incidence was 30.4 per cent in the same weight group. The ratio of surviving infants weighing less than 1,600 Gm. to the total number of surviving infants born at the Chicago Lying-in Hospital remained relatively constant from 1937 through 1948. Retrolental fibroplasia cannot be explained by prenatal bleeding or specific infection. Cutaneous angiomas cannot be said to have etiologic significance. A relationship between the use of sulfonamide drugs and the development of retrolental fibroplasia cannot be established in this series. An ocular disease of postnatal origin may be separated from the group. With this postnatal disease retinal detachment is the basic sign, prematurity is universal and associated central nervous system and somatic defects are less common. A large increase in incidence of this postnatal disease occurred with a change in neonatal management. During the same period, no change in the incidence of the disease of prenatal origin was apparent. The change in neonatal management that could be related to the rise and fall in incidence was the use of a multiple vitamin preparation containing a synthetic emulsifying agent. An attempt to correlate the first appearance of, or the changes in incidence of, the disease at the University of Chicago with the first use of vitamin A or modification of the dosage of vitamin A was unsuccessful. It is suggested that the term retrolental fibroplasia be reserved for those infants who have bilateral retinal separation as a complication of extreme prematurity until an etiologically appropriate name is proposed.

Congenital Megacolon Treated by Resection of Dilated Segment.—Ritter and his associates cite investigators who devised an operation intended to eliminate the contiguous distal narrowed, or relatively narrowed, segment in the obstructive type of congenital megacolon. The procedure is based on anatomic and physiologic aberrations of the distal segment, which has been found to be devoid of intramural plexuses and hence has been considered neurogenically obstructive. Ritter and associates describe their experience in 3 cases in which they resorted to resection of the dilated segment. Their contrastingly different surgical approach has yielded uniformly satisfactory results. Their results demonstrate the return of the distal narrowed segment to near normal caliber, distensibility and propulsion after resection of the dilated segment. There has been no recurrence to date. It is apparent that resection of either the narrowed or dilated segment gives equally good results and that an anatomic and physiologic basis for preferential selection of either procedure is not yet available. The complicated mechanisms responsible for intestinal motility are not entirely understood, and the absolute relationship of agenesis of the intramural plexuses to obstructive megacolon remains equivocal.

Proc. Soc. Exper. Biol. & Med., Utica, N. Y.

73:533-702 (April) 1950. **Partial Index**

Hormonal Mechanisms in Nervous Mechanism of Gastric Acid Secretion in Humans. G. B. J. Glass and S. Wolf.—p. 535.
Growth of Mycobacterium Tuberculosis in Egg Yolk Mediums. A. H. Eggerth.—p. 542.
Oral Treatment of Pernicious Anemia with Swine Duodenal Mucosa and Vitamin B12. L. M. Meyer, M. Krim and A. Sawitsky.—p. 565.
Experimental Pulmonary Edema: III. Hypoglycemia, Cause of Pulmonary Edema. E. M. MacKay and E. F. Pecka Jr.—p. 568.
Studies of Influenza A (PR 8) Infected Tissue Cultures by Electron Microscopy. J. S. Murphy, D. T. Karzon and F. B. Bang.—p. 596.
*Skin Test for Infectious Hepatitis. G. Henle, M. Drake, W. Henle and J. Stokes Jr.—p. 603.
Release of Adrenocorticotrophic Hormone by Direct Application of Epinephrine to Pituitary Grafts. W. V. McDermott, E. G. Fry, J. R. Brobeck and C. N. H. Long.—p. 609.
Platelet Regeneration During Therapy of Acute Leukemia with Folic Acid Antagonists. S. J. Wilson.—p. 620.
Studies on Antigens of Human Red Cells: II. Serological Properties of Rh Factor in Elinin. R. S. Evans, M. Moskowitz and M. Calvin. —p. 637.
Further Studies on Mechanism of Auricular Fibrillation. D. Scherf, L. J. Morgenbesser, E. J. Nightingale and K. T. Schaeffeler.—p. 650.
Effect of Adrenocorticotrophic Hormone (ACTH) on Serum Hyaluronidase Inhibitor in Rheumatic Fever. A. Dorfman and F. E. Moses.—p. 667.
Renal Glycosuria Induced by Adrenocorticotrophic Hormone. E. H. Kass, S. H. Ingbar and M. Finland.—p. 669.

Skin Test for Infectious Hepatitis.—According to Henle and her associates evidence has been obtained that the virus of infectious hepatitis can be propagated in minced chick embryo tissue culture and in the embryonated hen's egg. Virus thus cultivated induced mild hepatitis without jaundice in human volunteers, but no laboratory test for the presence of virus has been evolved as yet. The authors describe the preparation of a skin test antigen for infectious hepatitis from amniotic fluid of chick embryos infected with the virus of the disease. It has given apparently specifically positive skin reactions to tests in all persons with past histories of spontaneous or induced infectious hepatitis. In contrast, the incidence of positive tests among cases of past serum hepatitis was no greater than that found among an adult group chosen at random.

Public Health Reports, Washington, D. C.

65:411-462 (March 31) 1950

Nutrition Programs in State Health Departments. Subcommittee of the Committee on Diagnosis and Pathology of Nutritional Deficiencies. —p. 411.

65:463-502 (April 7) 1950

Safety Measures in a Tuberculosis Laboratory. C. H. Fish and G. A. Spznlove.—p. 466.
Tuberculosis Mortality in the United States, 1948. L. Guralnick and S. Glaser.—p. 468.

65:503-530 (April 14) 1950

Effect of Concentration and Reaction (pH) on Germicidal Activity of Chloramine-T. G. R. Weber.—p. 503.
Successful Two-Stage Resection of Carcinoma of Upper Thoracic Esophagus with Reanastomosis. H. L. Skinner and M. S. Lloyd.—p. 513.
Colorado Tick Fever: Isolation of Virus Strains by Inoculation of Suckling Mice. J. W. Oliphant and R. O. Tibbs.—p. 521.

65:531-554 (April 21) 1950

Experimental Transmission of Salmonella Oranienburg Through Cockroaches. T. A. Olson and M. E. Rueger.—p. 531.
Q Fever Studies in Southern California: IX. Isolation of Q Fever Organisms from Parturient Placentas of Naturally Infected Dairy Cows. L. Luoto and R. J. Huebner.—p. 541.
Induced Oviposition of Simulium Flies by Exposure to CO2. H. T. Dalmat.—p. 545.
New Salmonella Type: Salmonella Allandale. P. R. Edwards and G. J. Hermann.—p. 547.

Radiology, Syracuse, N. Y.

54:639-802 (May) 1950

Diagnosis of Renal Tumors in Adult. D. M. Davis.—p. 639.
Radiologic Diagnosis of Urinary Tract Tumors in Infants and Children. M. F. Campbell.—p. 646.
*Diastematomyelia: Transfixation of Cord or Cauda Equina with Congenital Anomalies of Spine. E. B. D. Neuhauser, M. H. Wittenborg and K. Dehlinger.—p. 659.
*Treatment of Leukemia and Allied Disorders with Folic Acid Antagonists: Effect of Aminopterin on Skeletal Lesions. F. N. Silverman. —p. 665.
Roentgen Therapy in Neuroblastoma: Review of 73 Cases. M. H. Wittenborg.—p. 679.
Wilms' Tumor: Evaluation of Treatment Methods. R. M. Harvey. —p. 689.
Pulmonary Air Meniscus. H. S. Weens and E. A. Thompson.—p. 700.
Chordomas: Roentgenologic Study of 16 Cases Previously Unreported. E. H. Wood Jr. and G. M. Himadi.—p. 706.
Mobility of Rectosigmoid: New Diagnostic Sign. G. Levene and E. A. Bragg Jr.—p. 717.
Hepato-Diaphragmatic Interposition of Small Intestine. J. F. Linsman and J. I. Chalek.—p. 726.
Multiple Carcinomas of Large Bowel. R. H. Marshak.—p. 729.
Device for Roentgen Examination of Colon Following Colostomy. J. C. Root and A. A. Rayle Jr.—p. 732.
Infantile Cortical Hyperostoses: Review of Cases with Case Report. W. S. Thoman and R. E. Murphy.—p. 735.
Methods of Marking Plane of Section in Open Lobotomy Operation. B. B. Whitcomb and W. B. Scoville.—p. 741.
Relative Biological Effectiveness of Beta and Roentgen Radiation as Shown by Radiotoxicity of Na^{24} for Mice. R. H. Snyder and W. E. Kisieleski.—p. 743.
Stereoscopic Viewing Desk Designed for Limited Space. D. T. Burke. —p. 750.

Diastematomyelia.—According to Neuhauser and his associates diastematomyelia is a congenital malformation of the neural axis characterized by a sagittal division of a segment of the spinal cord or the cauda equina and usually associated with anomalous development of the vertebrae. The two lateral portions of the cord are separated by an osseous or fibrocartilaginous septum which is attached anteriorly to one or more vertebral bodies, posteriorly to the dura and occasionally to the deformed vertebral arches as well. Roentgenograms show a fusiform widening of the interpedicular spaces over several spinal segments. In most instances there is also an osseous spur in the approximate center of the widened spinal canal in the anteroposterior projection. Myelograms have been obtained in some patients. At operation, this bony spur proved to separate the two portions of the spinal cord and to be attached to the posterior surface of the vertebral body. Twelve cases of transfixation of the neural axis have now been proved by operation at the Children's Hospital of Boston. In 10 the diagnosis was made preoperatively. Six other patients in whom the roentgen observations suggesting diastematomyelia are awaiting operation. Nine of the proved lesions occurred in the cord and 3 in the cauda equina. The lesion is clinically significant; nearly all of the patients have shown evidence of impaired innervation to the lower extremities or disturbance of sphincteric control. Usually, no abnormality of either lower extremity is observed at birth, but the patient fails to walk properly at the expected time, or starts to limp during the first several years of life. Atrophy of one or both lower extremities is frequent. One foot may be shorter than the other or may show talipes, metatarsus varus or pes cavus. The deep reflexes of the lower extremities may be hyperactive, diminished or absent. Occasionally there is hyperesthesia of the skin of the legs. Urinary incontinence is not uncommon. With increasing age of the patient, the diagnosis of diastematomyelia from either plain roentgenograms or myelograms may become more difficult, as the associated abnormalities of the bony spine result in progressive kyphoscoliosis, so that the typical roentgenologic observations are masked by the associated rotation, curvature and foreshortening of the spine. The operative removal of the midline septum seems logical becaues it removes the fixation and compression of the cord or cauda equina.

Folic Acid Antagonists in Leukemia.—Several investigators found that folic acid, a substance necessary for the growth of certain micro-organisms, when combined chemically with excess glutamic acid has a deterrent effect on the growth of certain experimental mouse neoplasms. Transient subjective and objective improvements were observed in clinical trials. Acceleration of the malignant proliferation was observed when these drugs were used in the treatment of leukemia. Biologic antagonists to folic acid were found to produce remissions of leukemia in approximately 30 to 50 per cent of the patients treated. Roentgen observations of skeletal lesions were made in a small group of leukemic children who were treated with aminopterin (4-aminopteroylglutamic acid). Lesions regressed during the course of treatment, and new lesions appeared only terminally. An incidental finding of transverse bands of heavy density at the ends of the shafts of the long bones is described, and their relationship to transverse lines in nonleukemic children is discussed. Silverman believes that further studies are required on the use of folic acid antagonists in the treatment of leukemia, particularly in combination with other forms of therapy, before their place in practical therapeutics can be assessed. Observations of side reactions may establish their value as experimental tools even if they are discarded for therapeutic use.

South Dakota Journal of Medicine, Sioux Falls

3:103-138 (April) 1950

Resume of Treatment of Carcinoma of Cervix. C. S. Larson.—p. 103.
Fractures of Hip. J. W. Martin.—p. 105.
Toward Effective Cancer Control. C. S. Cameron.—p. 108.
Cancer of Breast. W. C. White.—p. 109.

Southern Medical Journal, Birmingham, Ala.

43:375-468 (May) 1950

Carcinoma of Thyroid Gland. J. W. Hendrick, G. E. Ward and R. G. Chambers.—p. 375.
Detection and Diagnosis of Uterine Cancer. E. R. Pund and H. E. Nieburgs.—p. 384.
End Result Study of Congenital Coxa Vara: Treated by Haas Trochanteric Osteotomy. W. M. Roberts.—p. 389.
Surgical Correction of Hypospadias. H. M. Spence and S. S. Baird. —p. 392.
Bacillus Subtilis as Antibiotic in Treatment of Cancer. J. E. Gregory. —p. 397.
Necrotizing Renal Papillitis: Challenge in Management of Diabetes. B. H. Wiesel and J. F. A. McManus.—p. 403.
Allergic Bronchopneumonia. G. Pinesa.—p. 406.
Experiences with Electroshock Treatment in Known Cardiovascular Disease. J. A. Shield, H. M. McCue Jr. and W. M. Ticker.—p. 409.
Four-Year Study of Penicillin Treatment of Syphilis of Central Nervous System. J. L. Callaway, A. H. Flower Jr., V. R. Hirschmann and S. Olansky.—p. 412.
Rehabilitation of Hemiplegic Patient. D. A. Covalt.—p. 422.
Program of Alcohol Studies and Rehabilitation: Virginia State Health Department. L. J. Roper.—p. 425.
Otitis Externa: Comments Concerning Present Status of Therapy. W. D. Gill and E. K. Gill.—p. 428.
Studies on Newborn Children of Rh Sensitized Mothers. O. B. Hunter Jr. and J. B. Ross.—p. 431.
Practical Significance of Rh Factor. G. L. Jarvis.—p. 436.
Diagnosis of Sickle Cell Disease Associated with Pregnancy. W. D. Beacham, A. Mickal and D. W. Beacham.—p. 442.
Radiographic Diagnosis of Polypoid Lesions of Digestive Tract. W. M. Kitchen and E. R. Deweese.—p. 446.
Treatment of Scabies with New Compound. R. L. Patterson.—p. 449.

United States Armed Forces Med. Jour., Wash., D. C.

1:495-614 (May) 1950. **Partial Index**

Atabrine in Treatment of Cardiac Arrhythmias. C. H. Eaton and R. L. Hill.—p. 495.
Assay of Gonadotropins in Diagnosis of Neoplasms. J. A. Shively.—p. 505.
Evaluation of Treatment of Chronic Osteomyelitis. R. F. Legge and W. H. Schwingel.—p. 514.
Endometriosis of Urinary Bladder. S. L. Arje and G. Webb.—p. 521.
Hutchinson-Besnier-Boeck Sarcoid: Report of 3 Cases and Review of Literature. R. Foulk and S. L. Moschella.—p. 527.
Carcinoma of Uterus: Report of Case. A. Raftery.—p. 540.
Disinsertion of Biceps Brachii: Report of Case. J. S. Thiemeyer Jr. —p. 543.
Tetraethylammonium Chloride in Pain. V. M. Sborov and L. W. Bluemle Jr.—p. 546.
Recurrent Ectopic Pregnancy: Report of Case. J. Lingenfelder.—p. 550.
Thrombocytopenic Purpura: Discussion and Report of Case. F. T. Johnson. —p. 553.
Treatment of Bronchial Asthma with Psychotherapy: Report of Case. A. B. Scheibel.—p. 557.
Treatment of Rhus Dermatitis. R. J. Hoagland and P. W. Myers. —p. 562.
Effectiveness of Newer Drugs in Seasickness. W. L. Wright.—p. 570.
Progeria in Adult (Werner's Syndrome): Report of Case. B. R. Force and C. P. Powell.—p. 578.
Urinary Excretion of 17 Ketosteroids in Tetraplegia and Paraplegic Patient: Preliminary Metabolic Report. A. W. Cook and H. A. Lyons. —p. 583.
Circumcision of Newborn: Exact Technique for Use of Gomco Clamp. W. W. Manson. —p. 586.
Problems in Hearing. A. Glorig.—p. 590.
Pathologic Features of Yellow Fever in Panama. N. W. Elton and C. M. Johnson.—p. 596.

FOREIGN

An asterisk (*) before a title indicates that the article is abstracted.
Single case reports and trials of new drugs are usually omitted.

British Journal of Dermatology and Syphilis, London

62:151-194 (April) 1950

Action and Uses of Antihistamine Drugs as Applied to Dermatology. H. H. Dale.—p. 151.
Histamine Antagonist Therapy in Dermatology. R. P. Warin.—p. 159.
Naevus Sebaceus (Jadassohn) with Squamous Cell Epithelioma. T. Parkin.—p. 167.

British Journal of Plastic Surgery, Edinburgh

3:1-76 (April) 1950. **Partial Index**

Cross-Leg Flaps: Review of 60 Cases. P. H. Jayes.—p. 1.
*Surface Refrigeration Anaesthesia for Cutting Split-Skin Grafts. T. Gibson.—p. 6.
Regeneration of Sympathetic Activity in Grafted Skin as Evidenced by Sweating. I. A. McGregor.—p. 12.
Observations on Growth of Refrigerated Skin Grafts. A. E. Flatt.—p. 28.
Preliminary Report on Use of Local Flap and Peg Bone Graft for Lengthening Short Thumb. N. C. Hughes and F. T. Moore.—p. 34.
Preliminary Observations on Vascular Channels in Tube Pedicles. F. Braithwaite.—p. 40.

Surface Refrigeration Anesthesia for Cutting of Split Skin Grafts.—The possibility that surface refrigeration without a tourniquet might be a suitable anesthetic for skin-graft cutting has been investigated by Gibson. Two methods were used to chill the donor site, (1) direct application of ice and (2) circulation of ice-cooled water through a bag strapped to the appropriate area. In the first method the whole limb was not immersed in ice; the chilling of the donor site alone was attempted, and complete surface anesthesia was produced after two or three hours. This method worked well, but continual supervision was necessary to see that pressure was maintained; the ice required frequent replacement, and water tended to leak. An attempt was therefore made to devise a closed method whereby ice-cold water could be circulated through a rubber bag strapped to the donor area. The apparatus consists of an electrically driven circulation pump, an ice-and-water-mixing tank and a rubber bag. Chilling is begun approximately two hours before the time scheduled for operation. To allay anxiety and discomfort of the patient ¼ grain (15 mg.) of morphine is administered about half an hour before the operation. Grafts were cut with this apparatus from 15 patients, with complete success as regards anesthesia in all but 2 cases. In a graft from the buttock and a graft from the upper arm, lack of complete anesthesia was due to the inadequate contact between the bag and the skin; this resulted in a patchy type of anesthesia. All the other grafts were cut from the inner or outer aspects of the thigh. The patient has little or no discomfort during cooling provided that the chilling begins with tap water at 50 to 55 F. which is slowly cooled to the freezing point. The duration of the anesthesia is difficult to establish. The longest interval which has elapsed before cutting the graft is eight minutes after a chilling period of two and a half hours, and complete anesthesia was still present. It was expected that the patients might feel pain as the donor area became rewarmed, but in no case has any pain or discomfort been experienced after cutting the graft. No deleterious effects have been noted either in the take of the grafts or in the healing of the donor area after chilling.

Journal of Hygiene, London

47:337-452 (Dec.) 1949. **Partial Index**

Differential Diagnosis of Vesicular Stomatitis and Foot-And-Mouth Disease. Examination of Virus Samples from Mexico with Special Reference to Complement Fixation. J. B. Brooksby.—p. 384.
Morphology of Genus Leptospira as Shown by Electron Microscope. B. Babudieri.—p. 390.
Use of Haemagglutination-Inhibition Test in Epidemiological Influenza-Virus Studies. H. L. Wolff.—p. 396.
Search for Bacteriophages Active upon Bacteria of Brucella Genus. H. Williams Smith.—p. 414.
Examination of Floor Dust for Haemolytic Streptococci. R. E. O. Williams.—p. 416.
Concentrate of Red Squill as Rat Poison, and Its Toxicity to Domestic Animals. S. A. Barnett, J. D. Blaxland, F. B. Leech and M. M. Spencer.—p. 431.
Relationship Between Influenza and Pneumonia. C. H. Stuart-Harris, J. Laird, D. A. Tyrrell and others.—p. 434.

Journal of Physiology, Cambridge

111:1-214 (April 15) 1950. **Partial Index**

Responses of Blood Vessels of Muscles with Special Reference to Their Central Control. R. J. S. McDowall.—p. 1.
Responses of Heart Rate and Systolic Blood Pressure to Series of Sympathomimetic Amines in Unanaesthetized, Atropinized Bitch. M. F. Lockett.—p. 19.
Immediate and Delayed Effects of Diisopropylfluorophosphate Injected into Supraoptic Nuclei of Dogs. H. N. Duke, M. Pickford and J. A. Watt.—p. 81.
Synthesis of Acetylcholine in Wall of Digestive Tract. W. Feldberg and R. C. Y. Lin.—p. 96.
Inorganic Components of Gastric Secretion. R. B. Fisher and J. N. Hunt.—p. 138.
Accuracy of Meyerstein Haematocrit. D. M. Jackson and M. E. Nutt.—p. 150.
Response of Rabbit's Endometrium to Uterine Implants of Progesterone and Other Steroids. E. O. Höhn and J. M. Robson.—p. 174.

Lancet, London

1:793-840 (April 29) 1950

Limitations of Psychiatry. F. P. Haldane.—p. 793.
Use of Polyester Resins in Medicine. J. T. Scales.—p. 796.
Scattered Muscle Necroses Associated with Post-Traumatic Uraemia. G. L. Robinson.—p. 799.
Dissecting Aortic Aneurysm Simulating Arterial Embolism: Report of 2 Cases. G. J. Fraenkel and J. F. Neil.—p. 801.
Renal Dysplasia in Family with Multiple Hereditary Abnormalities Including Iliac Horns. C. F. Hawkins.—p. 803.
Method of Arthrodesis of Wrist. D. F. Thomas.—p. 808.
Basilar Invagination in Paget's Disease. R. A. Goodbody and L. V. Roberts.—p. 809.
*Medical Aspects of Carcinoma of Prostate with Secondary Deposits in Bone. M. H. Oelbaum.—p. 811.

Carcinoma of Prostate with Bone Metastases.—Oelbaum points out that the discovery that estrogens can be used efficiently in the treatment of prostatic carcinoma has made early diagnosis of great importance. Carcinoma of the prostate may be indistinguishable clinically from simple hypertrophy, even though it may already have given rise to metastases. It is therefore fortunate that a biochemical test—the estimation of acid phosphatase in the serum—has proved of value in diagnosis, especially when there are osseous metastases. The author cites 6 patients with carcinoma of the prostate and metastases to bone. The inactivation of prostatic phosphatase by alcohol was shown to be of diagnostic value. A leukoerythrobiastic type of anemia was noted in 4 patients. The effectiveness of diethylstilbestrol therapy was noticeable on the clinical course, on the serum acid and alkaline phosphatase values and on the anemia. The bone pains were usually relieved in less than a week. Interpretation of the roentgenograms of the pelvis can be extremely difficult; it may be almost impossible to decide whether an osteoplastic lesion is due to Paget's disease or to prostatic metastases in bone. Differences in the behavior of the acid phosphatase in these two conditions are described.

Medical Journal of Australia, Sydney

1:317-352 (March 11) 1950. **Partial Index**

Diabetic Mortality in Australia. H. O. Lancaster and J. K. Maddox.—p. 317.
Chemotherapy of Neoplastic Diseases and Blood Dyscrasias. A. W. Morrow.—p. 322.
Incidence of Rheumatism: Some Economic Factors. P. White and L. J. A. Parr.—p. 326.
Recent Work on Sympathetic Transmitter and Its Possible Relationship to Human Hypertension. A. J. Barnett.—p. 329.
Chondromalacia Patellae. N. S. Gunning.—p. 331.
Surgical Treatment of Coarctation of Aorta. H. Wilson.—p. 333.
*Chlorophyll: Preliminary Report of Its Use in 2 Cases of Second and Third Degree Burns. H. Haughton.—p. 337.

Chlorophyll in Treatment of Burns.—Haughton used chlorophyll in different types of burns. He describes 2 cases which typify its action and demonstrate its possibilities. Healing occurred in the first case in twenty-nine days and in the second in seven days. The burned surface heals with soft, pliable epithelium, practically without scarring, and may be ultimately indistinguishable from normal epithelium. Chlorophyll completely supersedes the sulfonamide compounds as a primary dressing for clean and potentially infected wounds. Chlorophyll is a powerful deodorant. The author suggests that chlorophyll be included in the armamentarium of burn treatment.

Acta Cardiologica, Brussels

5:1-108 (No. 1) 1950

Analysis and Origin of Heart Sounds (II). H. C. Burger, L. J. Koopman and A. P. T. Overeem.—p. 1.
Criteria of Pathologic Nature of Q_3 Wave in Adults. J. Enderle.—p. 7.
*Clinico-Pathologic Study of Rheumatic Heart Disease. R. Lenel, J. Strauss Jr. and J. G. Schlichter.—p. 41.
Pulmonary Arteriovenous Aneurysms and Generalized Angiomatosis. J. Lequime, H. Denolin, R. Delcourt and others.—p. 63.

Rheumatic Heart Disease.—Lenel and co-workers report on 141 men and 159 women in whom frank rheumatic cardiac lesions were revealed by necropsy. Group A, consisting of 125 patients, included those with a positive rheumatic history and all those in whom the rheumatic heart lesions had led to clinical symptoms or were responsible or contributory to death. Group B, consisting of 175 patients, included those in whom the cardiac lesions were a purely incidental postmortem observation. Twenty-three of the 125 patients died from active rheumatic carditis, 40 from congestive failure exclusive of rheumatic carditis, 30 from subacute bacterial endocarditis, 14 from acute bacterial endocarditis, 5 from embolism, 6 from bronchopneumonia and 7 from other causes. Acute myocarditis was the cause of congestive failure and death in all cases of acute rheumatic fever. Congestive failure during the course of bacterial endocarditis was common and nearly always associated with acute myocarditis and small infarcts. Congestive failure and death during pregnancy or immediately after delivery was associated with acute rheumatic myocarditis in a large number of cases. Many women with severe valvular deformities had uncomplicated pregnancies. Eighteen per cent of all the patients over 50 years of age had severe valvular lesions without any cardiac symptoms during life. Extensive myocardial fibrosis was observed more constantly than severe valvular deformities in patients in whom chronic congestive failure developed. Myocardial lesions play a predominant role in rheumatic heart disease as compared to valvular deformities. Congestive failure during an attack of acute rheumatic fever has a grave immediate and late prognosis. The diagnosis of rheumatic fever is primarily clinical. The electrocardiogram is not diagnostic but is of great value in diagnosis and prognosis when interpreted in close correlation with clinical and fluoroscopic observations. This is true for the acute as well as the chronic stage of the disease.

Bibliotek for Laeger, Copenhagen

142:45-84 (March-April) 1950

*Formation of Erythrocytes and Hemoglobin. S. Dahl.—p. 45.

Formation of Erythrocytes and Hemoglobin.—Dahl gives a historic review of the knowledge of iron with a summary of the development of iron therapy and the conclusions reached on effects, and discusses present day knowledge of iron metabolism. Calcium-phosphorus metabolism seems to be connected with iron metabolism. The most rational treatment of several iron deficiencies should be a combined iron-calcium-phosphorus-cod liver oil therapy. Iron metabolism is perhaps of greater importance in certain disorders than has been hitherto assumed, as for example in chronic polyarthritis. The origin of achylia also appears to be closely related to the iron metabolism. Personal investigations concerning these problems are reported. There are over 10 pages of bibliography.

Cardiologia, Basel

15:329-380 (No. 6) 1949/1950. **Partial Index**

Therapy of Fresh Myocardial Infarction. L. Slapak and H. Partilla.—p. 329.
*Prognosis of Myocardial Infarction and Comparability of Different Infarction Materials. S. Helander.—p. 347.
*Observations in Heart Failure. A. De Vries, C. H. Fryd and S. Gitelson.—p. 368.

Prognosis in Myocardial Infarction.—The investigation described by Helander concerned 193 cases of cardiac infarction treated at a clinic in Stockholm during the period from 1940 to 1947. Electrocardiographic records of infarction were available in all but 2 cases, so that the diagnosis can be regarded as definite. Treatment included rest in bed for from four to six weeks, with passive movements of the extremities to avoid thrombosis and the administration of drugs causing dilation of the coronary vessels, generally theophyllamine or caffeine. Nitroglycerine was used only in cases of high blood pressure, being avoided at low blood pressure. Particular attention was directed towards counteracting a fall in blood pressure and shock. These conditions were warded off by means of synephrin, caffeine and oxygen. Digitalis was given only in cases of fibrillation or in the presence of decompensation and even in these cases with great caution. Treatment with dicumarol was begun in 1945, but not until 1947 was it applied to an extent affecting the result. Of the 110 men 37 or 33.6 per cent died, and of the 83 women, 21 or 25.3 per cent died. The average age of men who died was 59 and of women 63. Adequate dicumarol therapy was given in 9 of 36 cases investigated during 1947. Nine of these 36 died, but of the 9 who died only 1 had received dicumarol. One of the aims of this investigation was to determine why the mortality rates vary so considerably in different case materials. The author feels that one of the chief reasons is that the composition as to the severity was not the same in the various studies. Grouping his own material into severe, moderately severe and mild, he finds that in 56 severe cases with shock and a fall in the blood pressure the mortality was 57 per cent, it was 22 per cent in 116 of group 2 and zero in 21 of group 3.

Effect of Withdrawal and Administration of Salt in Heart Failure.—De Vries and his associates studied the effect of administration and withdrawal of salt in a case of heart failure in cor pulmonale with myocardial infarction. As a consequence of salt administration, the venous pressure rose without significant change in the body weight. Following salt withdrawal, the venous pressure returned to normal, the body weight remaining unaltered. The authors conclude that an increase in venous pressure previous to body fluid accumulation does not necessarily indicate a primary change in venous pressure consequent to back pressure from the weakened heart, but that it may be due to a change in the mineral balance and/or changes taking place in the cellular and extracellular fluid.

Deutsche medizinische Wochenschrift, Stuttgart

75:97-128 (Jan. 20) 1950. **Partial Index**

*Early Cytologic Diagnosis of Bronchial Carcinoma by Means of Directed Bronchial Sound: Preliminary Report on 22 Cases. H. Hengstmann and D. Wittekind.—p. 101.
Pneumoperitoneum in Therapy of Pulmonary Tuberculosis. F. Heckner.—p. 105.
*Radicular Manifestations in Poliomyelitis. P. H. Neumann.—p. 107.
Psychosexual Problems in Relation to Gynecology. E. Kehrer.—p. 110.
Therapeutic Importance of Cobalt. L. Weissbecker.—p. 116.

Diagnosis of Bronchial Carcinoma.—Hengstmann and Wittekind obtained secretions from the tumor or from its immediate surroundings. After anesthetizing the pharynx, larynx, trachea and bifurcation, the sound is introduced as for bronchography. A Mercier catheter is introduced into the bronchus and bronchi. The catheter can be reinforced with a urethral catheter, which in turn carries a steel mandrin. This not only facilitates probing, but also prevents the entrance of secretion into the sound before the eye has reached its destination. In 21 cases in which pulmonary tumor was suspected tumor cells were detected in 17 in which carcinoma seemed established. Suspicious cells that made the diagnosis highly probable were found in 2 additional cases. In the 2 remaining cases the cytologic examination of the sputum and of the secretion obtained were negative. The authors compare the diagnostic reliability of their method with the cytologic examination of the sputum and of the bronchial secretion obtained by aspiration through the bronchoscope. Their method, which utilizes the directed bronchial sound, can be employed in patients in whom introduction of the bronchoscope is impossible.

Radicular Manifestations in Poliomyelitis.—Neumann says that his attention was drawn in 1945 to a patient who complained of pain which was different from that of the great majority of patients with poliomyelitis. He observed in 1946 and 1947 additional patients with poliomyelitis who complained of pain of a decidedly radicular type. Exact localization was impossible, pressure points could not be detected and the entire extremity was involved. In contradistinction to the continuous pain in patients with poliomyelitis, this pain was characterized by severe nocturnal exacerbations. The author assumed that inflammatory changes in the posterior roots were the cause

of this pain. This assumption was corroborated by the great increase in the protein content in the cerebrospinal fluid. He cites comparative figures on the protein values in the cerebrospinal fluids of patients with ordinary poliomyelitis and in those with the radicular form. He was able to corroborate his observations during the 1948 epidemic of poliomyelitis. The radicular pains always appeared in the segments corresponding to those of paralysis and the quantity of protein in the cerebrospinal fluid was always greatly increased. A total of 21 patients with poliomyelitis were found to have these radicular pains. The author assumes that in the radicular form of poliomyelitis the virus has a special affinity for the posterior nerve roots and that these are more severely involved in the mesodermogliosal reaction in the form of a radiculitis.

Minerva Medica, Turin

41:225-254 (Feb. 3) 1950. **Partial Index**

*Coronary Disease and Periarthritis of Shoulder. A. Robecchi.—p. 233.

Coronary Disease and Periarthritis of Shoulder.—Robecchi states that coronary disease with symptoms and electrocardiographic signs of myocardial infarct or angina pectoris are frequently followed or preceded by periarthritis of the shoulder. The clinical symptoms, character of pain, clinical types, course, roentgen appearance and response of coronary periarthritis to therapy are the same as those of ordinary periarthritis. Coronary periarthritis as a rule develops in the left shoulder. It becomes chronic with recurring bouts of shoulder pain during anginal or precordial pain. The shoulder pain is an irradiation of the coronary pain and is controlled by glyceryl trinitrate. Periarthritis of the shoulder in apparently normal persons suggests a latent coronary disease which will become manifest months or years later.

Presse Médicale, Paris

58:265-280 (March 15) 1950. **Partial Index**

Medical Investigation in French Tuberculosis Sanatoriums. G. Poix, Bardin, Douady and Féret.—p. 271.

*Role of Adrenal Cortex in Permanent Arterial Hypertension. P. Étienne-Martin.—p. 273.

Statistics of Masculine Sterility in 95 Cases of Azoospermia Due to Obliteration: Surgical Exploration and Treatment by Epididymodeferential Anastomosis. H. Bayle.—p. 276.

58:281-296 (March 18) 1950. **Partial Index**

*Section of Preaortic Plexus and Coronary Vasomotoricity. G. Arnulf.—p. 281.

Problem of Psoriasis. J. Charpy.—p. 283.

Cardiorespiratory Aptitude Test According to Flack. F. Plas, J. Bourdinaud and A. Missenard.—p. 285.

Role of Adrenal Cortex in Hypertension.—Etienne-Martin reports late results of surgical treatment in 43 patients with hypertension. Sympathectomy according to Peet was performed in 20 patients and adrenalectomy combined with splanchnicectomy in 23. Follow-up for sixteen years revealed that results in the latter patients were definitely superior to those in the former. Partial bilateral adrenalectomy seems to be preferable to unilateral adrenalectomy. Observations of the lesions of the adrenals, determination of the level of cortical steroids in the blood and in the urine and the effect of adrenalectomy on patients with hypertension suggest that corticoadrenal function plays an important part in permanent arterial hypertension in man. Experimental renal or neurogenic hypertension cannot be produced in adrenalectomized or hypophysectomized animals. Lowering of arterial tension results from adrenalectomy or hypophysectomy in animals. Clinical and experimental results suggest that permanent arterial hypertension should no longer be considered as related to a renal condition only. The same applies to the concept of the neurovascular system because of the favorable results obtained with extensive sympathectomy in certain cases of hypertension. The problem should be reconsidered with respect to the part played by the adrenal factor and particularly the corticoadrenal factor. Adrenalectomy combined with limited sympathectomy deserves a much larger consideration than it has been given hitherto.

Section of Preaortic Plexus and Coronary Vasodynamics.—Arnulf's experiments on dogs demonstrated that section of the preaortic plexus does not cause disturbances of rhythm. He assumed that at least a passive dilatation of the coronary vessels was likely to be produced by suppressing simultaneously the sympathetic and the pneumogastric nerve fibers. Satisfactory results obtained with infiltration and resection of the preaortic plexus in man with angina pectoris confirmed the author's assumption but definite proof was still lacking. The clearest evidence to the author's assumption was provided by direct photography of the coronary arteries and their branches. This was carried out in a special manner by placing a graduated index under the vessel to be studied. Thus modifications of the diameter of the vessel could be measured exactly by comparing successive photographs taken before and after the section of the preaortic plexus. An arteriole of 2.6 mm. in diameter showed an increase of 1 mm., i. e., 38.46 per cent, and consequently an important dilatation of the arterial lumen. Section of the preaortic plexus never produced vasoconstriction, but to the contrary it always caused vasodilatation.

Zentralblatt für Chirurgie, Leipzig

74:1121-1232 (No. 11) 1949. **Partial Index**

*Experiences with Intravenous Administration of Procaine Hydrochloride. H. Grunert.—p. 1131.

Technic of Ganglionic Injection of Alcohol in Trigeminal Neuralgia with Conservation of First Branch: Remarks on Pathogenesis. D. Kulenkampff.—p. 1141.

Injection of Iodized Oil into Diffuse Pleural Adhesions to Determine Pleural and Pulmonary Involvement in Tumors of Thoracic Wall. B. Swart.—p. 1148.

Effect of Bacteriostatic Substances in Abdominal Surgery with Special Consideration of Diffuse Suppurative Peritonitis. K. Kuhlmann and A. Schleinzer.—p. 1160.

Intravenous Administration of Procaine Hydrochloride.—According to Grunert, intravenous administration of procaine hydrochloride causes a general resorptive effect. The method was employed to influence the course of diseases which are controlled predominantly by the sympathetic nervous system. Toxic side effects such as irritability, sweating, nausea, tachycardia and vertigo may be prevented by using a compound of 0.1 Gm. of procaine hydrochloride, 0.05 Gm. of phenobarbital sodium as a brain stem sedative and 0.0003 Gm. of atrophine as antianaphylactin. Twenty to thirty injections of this compound were given to young patients with mild Raynaud's disease. Subjective relief, as well as rapid process of demarcation, resulted after a definitely improved perfusion of the extremities by blood. Intermittent claudication was improved by this therapeutic method. Chronic acroasphyxia and brachial paresthesia during sleep reacted favorably. Torpid varicose and trophoneurotic ulcers showed a definite tendency to healing. Temperature of the skin under the effect of procaine hydrochloride in patients with disturbed blood supply was raised for several hours after a short mild drop. The work capacity of 1 patient with angina pectoris and intermittent claudication was restored by two weekly injections of the procaine-phenobarbital-atropine compound. A more or less permanent recovery from migraine resulted from this treatment in several instances. Permanent relief was obtained in cases of phantom pain. Relief of pain in frostbite followed a two to three hour infusion with a compound of 1 Gm. of procaine hydrochloride, 0.1 Gm. of phenobarbital sodium and 0.001 Gm. atropine in 500 cc. of isotonic sodium chloride solution. The same method proved effective in mild cases of trigeminal neuralgia. The spasmolytic effect of this solution was demonstrated in 4 cases of cardiospasm and in cases of functional disturbances of the bile ducts. One patient with bronchial asthma who had refractory dyspnea for several weeks obtained relief with three intravenous injections of the procaine-phenobarbital-atropine compound. This compound is preferable to simple procaine hydrochloride. An initial series of six to eight injections may be followed by injections with an increased procaine hydrochloride ingredient, but more than 0.2 Gm. of procaine hydrochloride was seldom required. One should watch for individual hypersensitivity at the first injection.

BOOK NOTICES

The reviews here published have been prepared by competent authorities and do not represent the opinions of any official bodies unless specifically stated.

Physiology of the Eye. Volume I: Optics. By Arthur Linksz, M.D., F.A.C.S. Foreword by Walter B. Lancaster, M.D. Cloth. $7.50. Pp. 334, with 137 illustrations. Grune & Stratton, Inc., 381 Fourth Ave., New York 16, 1950.

The science of optics is the foundation stone of the proper understanding of the physiology of the eye. It is a difficult subject to teach because its physician students all have different backgrounds of training, at best elementary, in physics and mathematics. Most of the textbooks that are available assume a greater basic knowledge than is actually present, and for this reason most embryo ophthalmologists and optometrists find the subject of optics difficult. The author recognizes this handicap. He says in his preface, "The real title of this book should be 'An Introduction to Duke-Elder's Textbook Volume I.'" Keeping this plan in mind, he discusses the physics of light, geometric optics and the eye as an image-forming mechanism in terms that are straightforward, with a lucid and often entertaining style and with generous use of excellent figures and diagrams. The author is like Samuel Johnson's friend, Edwards, who said he had tried to be a philosopher, "but I don't know how, cheerfulness was always breaking in," for his book, in spite of its serious subject, is cheerful.

The author's trilogy will have as its second volume "Physiology of the Eye" and its third "Biochemistry of the Eye." Ophthalmologists will relish the first of these volumes to appear and look forward to its companions with pleasure.

Louis Pasteur, Free Lance of Science. By Rene J. Dubos. Cloth. $5. Pp. 418, with illustrations. Little, Brown and Company, 34 Beacon St., Boston 6, 1950.

When the Nazis invaded France in 1940 Joseph Meister, a gatekeeper at the Pasteur Institute, committed suicide to escape being compelled to open the crypt where Pasteur is buried. Fifty-five years earlier, Joseph had been bitten on the thighs, legs and hands by a rabid dog. In spite of Pasteur's reluctance to proceed from animal experiments to the treatment of human disease, he was persuaded by the physiologist Vulpian and the physician Grancher to attempt treatment of the boy, with Grancher assuming the medical responsibility of the case. The procedure of injecting live virus, even attenuated, into man contradicted one of the medical concepts of the time and therefore was opposed by conservative physicians. The validity of the treatment remains a controversial subject; the value of the rabies epic must be judged on broader aspects. Pasteur had thereby developed a technic by which the pathogenicity of infectious, invisible, noncultivable viruses could be modified and an immunity to them established in man.

Pasteur's early work was in the field of physical chemistry. At the age of 26, he discovered molecular asymmetry and was bold enough to prophesy concepts of modern stereochemistry. His study of crystals led to the study of fermentation, when one day his observation of an impure solution of calcium tartrate which had been contaminated by a mold caused him to wonder how the two forms of paratartaric acid would be affected under similar conditions. His inquisitive mind and methodic nature opened new vistas, and soon he became convinced that one of the fundamental characteristics of living matter was its asymmetric nature. Thus his study of the effect of micro-organisms on organic matter was the basis on which the science of microbiology, the germ theory of disease, asepsis and immunology were finally established.

The secret of Pasteur's success lies not only in his ingenious imagination but in his perfection of technics, his keen observation and ability to eliminate from his mind hypotheses which proved incompatible with factual observations. "Preconceived ideas are like searchlights which illume the path of the experimenter and serve him as a guide to interrogate nature. They become a danger only if he transforms them into fixed ideas—this is why I should like to see these profound words inscribed on the threshold of all the temples of science: 'The greatest derangement of the mind is to believe in something because one wishes it to be so.'" He was a painstaking technician and trusted none but himself to record his scientific procedures and observations. His ability to reproduce results of experimental procedures, where others failed, was dependent on his recognition that illusions and pitfalls resulted from failure to exactly duplicate details. Pasteur was a devoted family man and an excellent teacher, but he did not allow the pressure of family or professional duties to interfere with his experimental work. He was a crank and a bigot where his work was concerned; he demanded quiet not only in the laboratory but also at the dinner table. He was a fighter with the courage of his convictions and relished repeating experiments, particularly in public, to prove his concepts. An interesting aspect of his personality is reflected in his reluctance to study the fermentation of beer after his inspired study of the fermentation of wine; he did not care for beer.

Dr. Dubos, a qualified investigator in his own right, has utilized his portrayal of Pasteur's life and works as a medium for recounting the contributions of the advances of the "Wonderful Century" of scientific progress. He has written an inspiring biography of a man he obviously admires greatly, without recourse to idolatry, and he has not minimized the influence and contributions of other scientists of the era. One of the final chapters of the book, Mechanisms of Discovery, should serve to enlighten and encourage young scientists and physicians. Although the chronology of Pasteur's publications makes it appear that his experiments were performed in logical sequence, the fact remains that many of his discoveries resulted from chance observation or followed numerous disappointing trials of preconceived, unrelated ideas. The book is a factual story of a scientist whose name is a household word. The author has quoted from many of Pasteur's letters and speeches excerpts which effectively depict the scientist, the humanitarian and the man.

Nouvelle pratique chirurgicale illustrée. Jean Quénu, Directeur. Fascicule III. Paper. 1,200 francs. Pp. 290, with 252 illustrations by S. Dupret. G. Doin & C^{ie}, 8, Place de l'Odéon, Paris 6^{e}, 1949

Various collaborators have written the 278 pages of text, which appears mainly as step by step legends accompanying the illustrations. Each operative procedure is preceded by a few introductory remarks concerning the technic, indications and pertinent points. The subjects included are treatment of tonsillar epitheliomas with radium, by Pierquin and Richard; thyroidectomy, and resection and drainage of hip joint, by Cauchoix; bilateral herniorrhaphy (single transverse incision), by Lavarde; esophagogastric resection and supradiaphragmatic vagotomy, by Lascaux and Perrotin, and diaphragmatic hernia, splenectomy and temporary iliac anus, by Quénu.

In the presentation of these various procedures such usually neglected details as draping and venoclysis are given their proper importance. In the section on thyroid, local infiltration anesthesia is stressed. Mobilization of the lower flap is deemed essential. The preference is to retract the strap muscles rather than sever them. Postoperative drainage after the removal of both lobes of the gland is advocated. The section dealing with inguinal hernia stresses the importance of Cooper's ligament in the repair.

Chapter Four deals with the resection of the stomach and the esophagus for carcinoma of the cardiac end of the stomach. The anastomosis is depicted in sketchy line drawings with no surrounding structures for orientation. Therefore the relationships are completely lost. Supradiaphragmatic bilateral vagotomy is described according to the technic of Dragstedt.

The first illustration shows the chest opened immediately. This could have been enhanced with an illustration demonstrating the position of the patient and the location of the incision. In the section dealing with splenectomy emphasis could have been given the primary ligation of the splenic artery and incision of the left lienorenal ligament as an aid to mobilization. The volume can be recommended as a reference for the procedure herein included.

Principles and Practice of Therapeutic Exercises. By Hans Kraus, M.D., Assistant Clinical Professor of Rehabilitation and Physical Medicine, New York University College of Medicine, New York. Cloth. $6.50. Pp. 309, with 94 illustrations by Richard Kroth. Charles C Thomas, Publisher, 301-327 E. Lawrence Ave., Springfield, Ill., 1949.

The American public is exercise conscious. Practical experience in treating patients over the years indicates that "exercisitis" thrives. Perhaps too many overexert because of a belief that vigorous exercise is essential. It is for this reason that physicians see many healthy persons with undue fatigue, numbers of patients with cardiac disease or hypertension and middle-aged athletes who have injured themselves because they had put below-par bodies to excessive strain. However, on reading this book by Dr. Kraus one senses immediately that physicians have not been scientifically aware of certain specific indications for exercise. Physicians, as a group apart from their patients, have not been sufficiently exercise-conscious. Many prescribe exercise too haphazardly as a therapeutic aid, perhaps because they have not been taught to assess its potentialities for good. The author shows how to overcome this deficiency.

He presents the problem and its solution in a thorough, well written and sufficiently authenticated manner. He does not lose sight of the need for cooperation of many branches of the healing art. For example, he writes about the treatment of the child suffering from cerebral palsy:

> Here the treatment of the total patient is of special importance. These efforts should include study of the child's home, advice to the parents when necessary, and also a modified schooling and vocational program. It is obvious that a large number of specially trained people are needed to carry out such a program. Consultation with and diagnosis by pediatrician, speech specialist, psychologist and psychiatrist are in many cases necessary to establish the proper course of treatment. An adequate program should cover exercise, occupational therapy, speech therapy, application of splints and braces, possible surgery, schooling and, if necessary, psychiatric and social guidance.

There are sections which consider fundamental working principles of exercise, application of therapeutic exercise to particular fields and general exercises. Dr. Kraus's well written book is a "must" for orthopedists; it will be a revelation to most surgeons and medical men, regardless of their specialty.

Deep Massage and Manipulation Illustrated. By James Cyriax, M.D., B.Ch., Physician to the Department of Physical Medicine, St. Thomas's Hospital, London. Third edition. Cloth. Price, $5. Pp. 278, with 104 illustrations. Paul B. Hoeber, Inc., Medical Book Department of Harper & Brothers, 49 E. 33d St., New York 16, 1948.

This book deals with the technic employed and the results obtained from the penetrating effect of friction massage on deep seated tissues. The technic described is that of deep friction over the site of the lesion, which "may or may not be within the painful area outlined by the patient and may not be at the tender spot that he indicates." The author emphasizes the importance of diagnosis before treatment is begun: "No advantage is gained by giving massage near an inflamed point; if it is to be given at all, it must be applied to the exact spot. Referred pain provides the chief difficulty. Thus it is evident that the source of a pain must be determined before any question of massage can arise at all."

The author's method differs from the one used in this country, where a circular technic is used with the thumb over the lesion; his method requires the use of a deep transverse friction by means of the middle and index fingers, largely the middle finger. The author also explains his technic of manipulation, which, in the United States, is not the function of physical therapists.

The book is in two parts. The first part (24 pages) has short chapters with many interesting observations on the scope and purpose of deep massage, including principles governing use of deep massage, position of the physiotherapeutist and her hands, passive movement, the action of massage, the physiotherapeutist's working day and the present position of these technics. The second part contains 104 full page illustrations with summaries of procedures. Opposite each illustration is a description of the nature of the lesion, frequency, indication, patient's posture, technic, duration of treatment, after-treatment and results. The descriptions are in summary form, and the illustrations clearly describe the technic. Both are well done.

Undoubtedly there are conditions where the use of this vigorous technic is indicated; but, as Dr. Cyriax himself warns, there are dangers. "The use of deep friction, since it cannot fail to be painful, is justified only by the fact that it possesses great curative powers when applied to the right spot in the right way. If, then, damage is to be avoided, no question of deep friction can arise until two conditions are fulfilled—the first that the physiotherapeutist knows how to give it, and the second that she knows exactly where. Thus, the technically competent physiotherapeutist must be given a diagnosis precise in detail." Unless the prescribing physician gives a diagnosis that is precise in detail and the physical therapeutist knows how to apply the technic to the right spot in the right way, extreme caution should be used in introducing this method, because of the danger of aggravating the original condition.

Clinical Radiation Therapy. Edited by Ernst A. Pohle, M.D., Ph.D., F.A.C.R., Professor of Radiology, Chairman, Department of Radiology, University of Wisconsin, Madison. Second edition. Cloth. $15. Pp. 902, with 202 illustrations. Lea & Febiger, 600 S. Washington Sq., Philadelphia 6, 1950.

This edition is the first revision of the book undertaken since the original publication of 1932. There are twenty contributors, all of whom are widely known in the subspecialties of radiation therapy. Each has written authoritatively of the diseases which, because of his particular experience and investigative work, he is best qualified to treat.

In parts the text is completely rewritten and modernized in accord with the advances of the past two decades. Among these, the sections dealing with breast, larynx, genitourinary tract and nervous system are outstanding. In disappointing contrast, there are several equally important sections which have undergone little revision since the original publication. The book contains much that is of real value to the working radiologist, but it omits, or treats inadequately, certain subjects of great practical and current interest. For example, complicated technics of radium therapy are developed for the treatment of some diseases better managed by other methods, yet there is no discussion of so common a lesion as hemangioma of the skin. Advances of the recent decade, such as those in radioactive isotope and endocrine therapy, are dismissed briefly or omitted, and there is little to be found concerning supervoltage technics.

A valuable chapter concerning the civil liability of the radiologist has been added, and there are supplements describing briefly the principles of radium dosage, with particular emphasis on carcinoma of the skin of the head and neck. This textbook would doubtless be a useful addition to a large medical library, and it is satisfactory as a supplementary guide to the student and general practitioner of radiation therapy. There are however, certain shortcomings which center about incomplete revision.

Actualités chirurgicales 1949. Par P. Bay, et al. Clinique chirurgicale de l'Hôpital Cochin, Jean Quénu, professeur. Paper. 1850 francs. Pp. 404, with illustrations. G. Doin & Cie, 8, Place de l'Odéon, Paris 6e, 1949.

This book deals with the activities of the surgical clinic of the Cochin Hospital under the professorship of Jean Quénu. The various sections are written by members of the staff. Twenty subjects are discussed: the blood bank, venous thrombosis, osteoperiositis, diaphysial fractures, treatment of hiccups, diaphragmatic hernia, carcinoma of the esophagus, carcinoma of the cardia, results with gastrectomies, tuberculosis of the cecum, total colectomy, carcinoma of the transverse colon, hydatid cyst, carcinoma of the ampulla of vater, splenectomy, ovariectomy, vaginal fibromas, the menopause, retroperitoneal tumors and inguinal hernias.

The section on diaphragmatic hernia stresses the importance of associated anemia found with herniation of the stomach into the thoracic cavity. This section is well written and includes

some interesting case reports. Both the medical and surgical aspects of this condition are discussed. The chapter on carcinoma of the esophagus includes illustrations of the blood supply of that organ. The esophagus is divided into anatomic segments, and the lymph drainage of each segment is discussed. Supra-aortic anastomosis is preferred to the retroaortic procedure. The circular excision stoma on the stomach, as advocated by Sweet, is stressed in the discussion of anastomosis.

In the section dealing with the surgical treatment for carcinoma of the cardiac end of the stomach, it would have been well to include a few illustrations showing the technic; this would have amplified the authors' points. The volume as a whole deals with statistical studies and case reports. Numerous roentgenograms are found throughout the various sections. These amplify the diagnostic and the pathologic phases. The book can be recommended as a reference for statistical data and case reports of the subjects listed.

Better Care in Mental Hospitals. Edited by Daniel Blain, Medical Director, A.P.A. Proceedings of the First Mental Hospital Institute of the American Psychiatric Association, held at the Institute of the Pennsylvania Hospital, Philadelphia, April 11-15, 1949. Paper. $3. Pp. 208. American Psychiatric Association, Office of the Medical Director, 1624 Eye St., N. W., Washington 6, D. C., 1949.

This is a report of the First Mental Hospital Institute under the auspices of the American Psychiatric Association. The main theme was the outstanding need to improve mental hospital facilities and particularly to determine what could now be done to improve care in these hospitals. Opening remarks concerning the general problem were made by Dr. William C. Menninger, president of the American Psychiatric Association, and Dr. Morris Fishbein of Chicago. Discussion groups considered matters relating to administration, interrelationships of hospitals in the community, personnel needs and clinical methods of treatment.

Probably none of the mental hospitals in the United States or Canada today are up to standards prescribed by the Committee on Hospital Standards and Policies of the American Psychiatric Association. In order to comply with personnel requirements established by association standards, it was estimated that it would be necessary to employ additionally 9,000 psychiatrists, 3,000 neurologists, 3,000 clinical psychologists, 40,000 graduate nurses, 3,000 psychiatric social workers, 92,000 trained attendants and approximately 20,000 miscellaneous personnel.

Although it was considered impossible to reach proper standards in mental hospitals within the next five years, it was believed that with sufficient effort hospitals could be brought to such standards within the next ten years. Representatives in attendance believed that enough had been accomplished at the meeting to warrant a yearly mental hospital institute.

A Pattern for Hospital Care: Final Report of the New York State Hospital Study. By Eli Ginsberg. Cloth. $4.50. Pp. 368. Columbia University Press, 2960 Broadway, New York 27; Oxford University Press, Amen House, Warwick Sq., London, E.C.4, 1949.

This book presents a comprehensive study of the pattern of hospital care in the state of New York as related to present facilities and organization and future needs. It focuses its major attention on general hospitalization, which in terms of individual care represents the largest segment of the hospital field. Within this sphere the author presents a comprehensive analysis and evaluation of the economic position of the voluntary general hospitals as related to costs and income, replacement of obsolete facilities and future expansion of hospital service. In this connection he reports that the financial situation of general hospitals in New York State has improved since the difficult years of 1945-1947. Closely linked with the economic problem is the role of hospital insurance. The author has also given careful consideration to municipal hospitalization and to the function of state government in hospital care.

A large part of the book is devoted to the needs in the psychiatric field, the hospitalization of the chronically ill, the problem of providing better care for tuberculous patients and the need for further expansion of ambulatory services. Although these studies have been made chiefly as an individual state survey the large body of information that has been collected, the careful analysis of all data and the extensive list of thirty pages of recommendations and observations will be of major interest to all who are concerned in the development and maintenance of high quality hospital service at local, state and national levels. This book is a valuable contribution to the literature of the hospital field.

Objective Psychotherapy: Principles, Methods, and Results. By Ben Karpman, M.D., Chief Psychotherapist, St. Elizabeths Hospital, Washington, D. C. J. Clin. Psychol., Monograph Supplement, No. 6, July 1948. Paper. Pp. 154. Journal of Clinical Psychology, Medical College, University of Vermont, Burlington, Vermont, 1948.

The author describes principles, methods and results of objective psychotherapy as developed and practiced with patients. The method is stated to be oriented within the focus of psychoanalysis. Primarily, it is an attempt to avoid overdevelopment of the relationship between the patient and physician and thus reduce transference and resistance to an optimum. Instead of the patient's being allowed to talk freely as in "free association," he is given a series of questions to answer in privacy and at his leisure without reference to suggestions of the therapeutist. The patient records dreams in detail and appends his own interpretations and comments to them.

The method is said in part to prevent the physician from imposing his personality, views and "gratuitous" interpretations on the patient. Written answers to questions prepared by the therapeutist are answered in memorandum form by the therapeutist. After several series of questions and answers are completed, a "memorandum as a whole" is prepared. Reading of recommended books on psychotherapy and psychopathology is included as part of the treatment. The author is of the opinion that the treatment described is not adaptable to all cases and is usually more successful with the more superficial type of neurosis. A case report in complete detail is presented as a demonstration of the method.

Occupational Therapy: Principles and Practice. Edited by William Rush Dunton, Jr., M.D., and Sidney Licht, M.D. Cloth. $6. Pp. 321, with illustrations. Charles C Thomas, Publisher, 301-327 E. Lawrence Ave., Springfield, Ill.; Blackwell Scientific Pubns., Ltd., 49 Broad St., Oxford, England; The Ryerson Press, 299 Queen St., W., Toronto 2B, 1950.

This book is a compilation of articles which have been written by 11 authors. Eight of these authors are physicians. The articles are grouped into 13 chapters: (1) history of occupational therapy, (2) the principles of occupational therapy, (3) the prescription, (4) occupational therapy for psychiatric disorders, (5) kinetic occupational therapy, (6) occupational therapy for amputees, (7) occupational capacity and therapy in heart disease, (8) occupational therapy in tuberculosis, (9) occupational therapy in the treatment of cerebral palsy, (10) education for hospitalized patients, (11) bibliotherapy in neuropsychiatry, (12) recreational therapy and (13) drama therapy.

In this source book the physician can find the principles for the application of occupational therapy, presented by persons well qualified in their respective fields. Prescriptions for many pathologic conditions are given in detail. An extensive physical analysis of crafts emphasizes the use of certain activities for restoration of particular functions. The importance of proper dosage and specialized apparatus and activities for certain diseases is discussed. Considerable attention is directed to the role of occupational therapy and the related fields of bibliotherapy, recreational therapy and drama therapy in psychiatric conditions. The need for total rehabilitation of the patient, including preparation for a future occupation, is stressed.

Although some detailed technics for the application of occupational therapy are included, this book was written primarily for physicians and is recommended for their information concerning this growing specialty.

The Personality of William Harvey. By Geoffrey Keynes, M.A., M.D., F.R.C.S. The Linacre Lecture Delivered at St. John's College, Cambridge, May 6, 1949. Cloth. $1. Pp. 48, with 8 illustrations. Cambridge University Press, Bentley House, 200 Euston Rd., London, N.W.1.; American Branch: 51 Madison Ave., New York 10, 1949.

Students of William Harvey will find in this booklet an interesting account of the personality of Harvey and several portraits. It is a brief and easily read presentation and provides an interesting aspect that will be welcomed in medical libraries.

Sight, Light and Efficiency. By H. C. Weston, Director of Group for Research in Occupational Optics and Secretary of the Vision Committee, Medical Research Council, London. Cloth. 42s. Pp. 308, with 132 illustrations. H. K. Lewis & Co. Ltd., 136 Gower St., London, W.C.1, 1949.

The author points out in his preface that "occupational efficiency is a variable dependent upon many other variables." Among these variables that influence efficiency are "the sight of the worker, the kind of things that have to be seen and the lighting intended to reveal them." He proceeds to elaborate on these influences in a competent manner and in terms suited to the intelligent layman.

The subjects covered are the sense of sight, the causes and symptoms of eyestrain, occupational demands on sight, the facilitation of visual tasks, lighting and visual efficiency, incentive luminescence and color, testing sight for work and protection of sight at work. The author has freely consulted experts in their respective and pertinent fields to insure the accuracy of his statements, for example, such authorities as Sir Stewart Duke-Elder and Sir John Parsons, with the result that here is a reliable and conclusive book, well illustrated and printed, that should be welcome to plant managers, medical directors, physicians and others interested in this important subject.

Principles of Chemistry: An Introductory Textbook of Inorganic, Organic, and Physiological Chemistry for Nurses and Students of Home Economics and Applied Chemistry. By Joseph H. Roe, Ph.D., Professor of Biochemistry, School of Medicine, George Washington University, Washington, D. C. Seventh edition. Cloth. $3.50. Pp. 427, with 50 illustrations. The C. V. Mosby Company, 3207 Washington Blvd., St. Louis 3, 1950.

A Laboratory Guide in Chemistry. By Joseph H. Roe, Ph.D., Professor of Biochemistry, The School of Medicine, George Washington University, Washington, D. C. Second edition. Paper. $2.25. Pp. 216, with illustrations. The C. V. Mosby Company, 3207 Washington Blvd., St. Louis 3, 1950.

The student nurse who takes a 50 hour course based on this textbook and laboratory manual ought to enjoy it, for the author rapidly reaches topics of great interest to nurses: radioactivity and its medical applications, the chemistry of physiologic processes, foods and nutrition, vitamins and hormones. However, none of the inorganic, organic and physical chemistry normally included in comparable texts is omitted. Moreover, the print is large and the pages small. The brevity required in the treatment of each topic in the text is offset by the author's clear, simple and unhurried style. Diagrams and pictures are used liberally, especially in the laboratory manual. The section of the manual on urine analysis even includes color photographs of positive reactions to the tests.

Teaching aids employed in the textbook include a short list of questions at the end of each chapter, a glossary of important chemical terms, a summary of units of measurement and a list of empirical formulas of important chemical compounds. Teaching aids in the manual include a list of chemicals and equipment needed for the entire course; a list of chemicals, reagents and unusual apparatus needed in each experiment; questions on the experiments, and labeled drawings of laboratory apparatus. Obviously the author has striven to keep the equipment and required technic as simple as possible. However, one wonders at the inclusion in this age of a lesson on the bending of glass tubing.

The author formerly taught chemistry at the Central School of Nursing, Washington, D. C., and is now professor of biochemistry at George Washington University.

A Short History of Physiology. By Kenneth J. Franklin, D.M., F.R.C.P., Professor of Physiology at the Medical College of St. Bartholomew's Hospital, London. Second edition. Cloth. $2; 10s.6d. Pp. 147, with 16 illustrations. Staples Press Ltd., Mandeville Place, London W.1; Staples Press Inc., 70 E. 45th St., New York 17, 1949.

Medical students need the brief and interesting historical survey which this book provides. Making no claim to complete and detailed coverage, it nevertheless describes clearly the origin and development of the essential basic concepts from which physiology and medicine, their vocabularies and methods, have developed. The first third of the volume covers the period from the sixth century B. C. to Harvey and includes a summary of the recently described contributions of Ibn an-Nafis. Although Caesalpinus is given credit for the first use of the word "circulation," Harvey's position is still regarded as pre-eminent because he was the first to consider function in quantitative terms, the first to appreciate the volume and rapidity of blood flow and the first to use the experimental method systematically.

The remaining two thirds of the book, with the aid of clear marginal headings, describes by subjects the rapidly accelerating development of physiology and adjacent fields of medical interest during the seventeenth, eighteenth and nineteenth centuries. Included are accounts of numerous technics and terms now so taken for granted that their origins are difficult to find elsewhere. This small volume can be recommended to the busiest student for collateral reading; its brevity enhances, rather than diminishes, the historical perspective it aims to provide.

Die Gynäkologischen Operationen und ihre topographisch-anatomischen Grundlagen. Von Prof. Dr. med. Heinrich Martius, Direktor der Universitäts-Frauenklinik Göttingen. Sixth edition. Cloth. 60 marks. Pp. 436, with 422 illustrations by Käthe Droysen. Georg Thieme Verlag, Diemershaldenstrasse 47, (14a) Stuttgart-O, 1950.

The first edition of this book appeared in 1936. In spite of World War II, editions of this book appeared in 1940 and 1942. An English translation of this book was prepared by the second edition and a Spanish edition of the fifth edition. This book deserves translations because it is outstanding in its field. The author is one of the foremost obstetricians and gynecologists in the world and has published several books other than the one under consideration.

The book contains descriptions and illustrations of all the standard gynecologic operations and some operations seldom performed. Recent new operations are also included. The book is divided into six sections: gynecologic laparotomies, vaginal operations, operations for urinary incontinence, uterine curettage, herniotomies and operations on the intestines. Nearly all the illustrations are the same as in the last edition. They were beautifully drawn by Käthe Droysen, and most of them are in color. They are clearly reproduced and highly instructive. The type is clear, the paper is sturdy, and the book is well bound. The text is well written in a simple style. Because of the author's extensive experience in gynecologic surgery, he describes small points in technic which are most helpful to the operator. For surgeons and gynecologists who can read German, this book will prove most helpful, not only as a reference book for almost every gynecologic operation, but also for its detailed descriptions and illustrations of the anatomy of the female pelvis.

Introduction to Neuropathology. By Samuel Pendleton Hicks, M.D., and Shields Warren, M.D., Director of the Division of Biology and Medicine, U. S. Atomic Energy Commission. Cloth. $10. Pp. 494, with illustrations. McGraw-Hill Book Company, Inc., 330 W. 42nd St., New York 18; Aldwych House, Aldwych, London, W.C.2, 1950.

According to the authors this book has been designed for medical students and for trainees in the specialties of neurology and pathology. It seems impossible that the medical student could gain from this book a worthwhile concept of the pathologic aspects of neurologic diseases, and the information on neuropathology, both gross and microscopic, is so inadequate and incomplete as to be useless to persons seeking postgraduate training in any specialty. The authors imply that whatever special virtue this book may have is the result of its having been written by general pathologists rather than by specialists in neuropathology. Although no one would deny that the general pathologist is often in position to add to knowledge of disorders of the nervous system, this book is ample evidence that the first requisite for one who would write informatively on neuropathology is a fuller understanding of the nervous system and its diseases than is evidenced within its pages.

This book does not present a new and valuable viewpoint. It would be possible to document with many examples the inaccuracies and the superficial descriptions of the neuropathology of many diseases with which the pages of this book are replete. The authors repeatedly devote considerable space to a poor presentation of the clinical and etiologic aspects of various diseases and then dismiss the pathologic aspects with little more than an uninformative sentence.

Dementia Praecox: The Past Decade's Work and Present Status: A Review and Evaluation. By Leopold Bellak, M.D., Associate in Psychiatry, New York Medical College, New York. Foreword by Winfred Overholser, M.D., Superintendent, St. Elizabeths Hospital, Washington, D. C. Fabrikoid. Price, $10. Pp. 456. Grune & Stratton, 381 Fourth Ave., New York 16, 1948.

This book is a comprehensive review of the literature on this subject appearing in the *Quarterly Cumulative Index Medicus* between 1936 and 1946. The study was financed by the Scottish Rite of Freemasonry and represents a continuation of the review by Nolan D. C. Lewis (1936) entitled "Research in Dementia Praecox (Past Attainments, Present Trends and Future Possibilities.)"

This is a monumental effort attested to by the 3,200 papers that were abstracted and summarized and the gathering of the material in readable form. The chapters include discussions on definition and description, statistics, etiology, diagnosis, physiologic and psychologic studies, somatic treatments and psychotherapy. Each chapter has a complete and valuable bibliography.

Noteworthy is Dr. Bellak's organized concept of the entire problem, which he calls a psychosomatic view. He views each case as located at some point between complete psychogenicity and complete organicity and feels that one must evaluate somatic and sociopsychologic predispositions as well as psychologic and somatic precipitants. He is desirous of differentiating diagnostically schizophrenia from dementia precox; the former is represented by a person who has predominant sociopsychologic predisposition and precipitant and the latter by a person with the reverse.

The author concludes that psychologic studies are important in diagnosis and treatment, but the most significant observation on the combined physiologic studies was that any data considered showed greater variability than normal.

The comments on research are particularly interesting. The author notes that research has so often been a by-product of pressing clinical practice and suggests an organized combined attack with the possibility of a schizophrenia registry. He pleads, too, for better scientific experimental design. Quantitation and more objective criteria are set up as goals.

The book is a valuable compilation of the literature on a disease that now causes its victims to occupy one out of four hospital beds. It is a convenient source book for all clinicians and is of considerable importance to every research worker and practitioner in psychiatry.

Transactions of Conference on Industrial Wastes: Fourteenth Annual Meeting. Industrial Hygiene Foundation of America, Inc., Transactions Bulletin No. 13, 1949. Paper. $2. Pp. 116, with illustrations. The Foundation, Mellon Institute, 4400 Fifth Ave., Pittsburgh 13, 1950.

The series of papers presented at the Industrial Hygiene Foundation's recent conference on industrial wastes is now available under one cover in this bulletin. It deals very largely with air pollution from the technical, managerial, legal, public relations, meteorologic and socioeconomic point of view. The medical contributor was concerned over the paucity of dependable observations on the relation of air contaminants to health and, until such data were available, felt that care should be taken to avoid needless alarm. Several papers discussed stream pollution, which has much in common with smog, in that ultimate correction must depend on an aroused public opinion. The authorities making up the conference agreed that present knowledge can be mobilized to modify or abolish pollution from industrial sources but that much additional scientific study, epidemiologic observation and public education are needed before a final solution appears.

Diseases of the Eye, Ear, Nose, and Throat: A Textbook for Nurses. By Albert P. Seltzer, M.D., Sc.D., F.I.C.S., Assistant Professor in Otolaryngology, Graduate School of Medicine, University of Pennsylvania, Philadelphia. With the Technical Assistance of Bernard C. Gettes, M.D., Instructor of Ophthalmology, Graduate School of Medicine, University of Pennsylvania, Philadelphia. Cloth. $4. Pp. 347, with 28 illustrations. McGraw-Hill Book Company, Inc., 330 W. 42nd St., New York 18; Aldwych House, Aldwych, London, W.C.2, 1950.

As a textbook for nurses, this is a competent guide to the structure, function and diseases of the eye, ear, nose and throat. The authors clearly describe a number of the commoner ophthalmologic and otorhinolaryngologic disorders and especially emphasize the nursing care involved. Of special significance to nurses is the information imparted in the chapters entitled "The Nurse and Her Duties," "Office Equipment," "History Taking and Physical Examination," "Eye Nursing in the Clinic and Laboratory," "Do's and Don't's in Eye Nursing," "Emergencies in Eye Nursing," "The Audiometer and Its Use," "Hemorrhage and Its Management," "Emergencies in Ear, Nose and Throat Nursing," "Do's and Don't's in Nose and Throat Care" and "Instruments for Operations on the Nose, Throat and Ear."

Untersuchungen über die Tuberkulose des Dünndarmes. Von Dr. F. Böhm. Tuberkulose-Bücherei, Monographien zur Monatsschrift "Der Tuberkulosearzt," herausgegeben von Dr. Rolf Griesbach und Prof. Dr. Otto Wiese. Paper. 10.50 marks. Pp. 71, with 68 illustrations. Georg Thieme Verlag, Diemershaldenstrasse 47, (14a) Stuttgart O; Agents for U. S. A.: Grune & Stratton, Inc., 381 Fourth Ave., New York 16, 1950.

This booklet contains the following chapters: Statistical data, pathology, roentgenogram of the small intestine in normal persons and in persons with tuberculosis, clinical laboratory tests, differential diagnosis and therapeutic and prognostic considerations. An introduction and a rather limited list of references are added.

The author based his data on the observation of 347 patients with intestinal tuberculosis, with special regard to the roentgen and pathologic findings during operations or in postmortem examinations. The role of the lymphatic apparatus in the propagation of intestinal tuberculosis is emphasized. A case of hemorrhagic ulcerative ileitis due to hypersensitivity reaction during the course of tuberculosis is presented. Numerous good photographs show early tuberculous lesions of the intestines. Several pages and pictures are devoted to normal roentgen findings in the intestine and to roentgen study of the tuberculous intestine. There follows a short discussion of hematologic findings and of the stool catalase and Triboulet protein reactions. A few words are said about differential diagnosis, especially concerning "nonspecific" enteritis, necrotic enterocolitis (a disease said to be prevalent in northwestern Germany since 1946), typhoid and paratyphoid, and a frank admisison that regional ileitis, from which intestinal tuberculosis has to be distinguished, has not been studied in Germany as yet. The author is not in favor of surgical treatment. He applied modern chemotherapeutics in 11 cases only.

It seems that this monograph should rather carry the title "Pathology and Roentgenology of Intestinal Tuberculosis" than its present inscription, because of the lack of description and discussion of the other aspects of this localization of tuberculosis. There is, perhaps, too much space devoted to the contradiction of the opinions of American and French authorities on the subject. The photographs, however, were well selected and reproduced. The paper is excellent, but the printing is rather poor and contains many errors.

La craniectomía a través de los siglos. Por Rafael Vara López. Discurso de apertura del curso de 1949-1950 de la Universidad de Valladolid. Paper. Pp. 149, with 70 illustrations. Valladolid, 1949.

Dr. López, from the department of pathologic surgery in the University of Valladolid, Spain, has written an excellent monograph on the history of craniectomy. Beginning with trephining as the first form of cranial operation, the author discusses the slow growth of knowledge of neurosurgery in the pre-Columbian era, among the Egyptians, Greeks, Romans and Arabians and in medieval, renaissance and modern times. Three chapters are devoted to the contributions from Spain during the seventeenth to the nineteenth centuries. The book is fully documented on the Spanish literature of this period. Modern times, however, are not neglected, for the story is carried through to the period of Harvey Cushing and his associates. The text is well written and the chapters are skillfully organized. There are numerous plates, one in color, and many reproductions of title pages of important books, pictures of pathologic specimens and instruments. The format is good. This monograph, a timely and scholarly production, is highly recommended to the neurologic surgeon and historian. It should also find a place in all large medical libraries.

QUERIES AND MINOR NOTES

The answers here published have been prepared by competent authorities. They do not, however, represent the opinions of any official bodies unless specifically stated in the reply. Anonymous communications and queries on postal cards will not be noticed. Every letter must contain the writer's name and address, but these will be omitted on request.

THORACOLUMBAR SPLANCHNICECTOMY

To the Editor:—What is the mortality and morbidity of lumbar sympathectomy in the treatment of essential hypertension? What are the results usually achieved by this procedure? How are patients selected as candidates for this procedure? R. V. Ferrell, M.D., Eldorado, Ill.

ANSWER.—Lumbar sympathectomy is used principally in the treatment of peripheral vascular disorders of the lower extremities. If one assumes that the questions asked refer to the surgical treatment of essential hypertension by thoracolumbar splanchnicectomy, they may be answered as follows:

1. Thoracolumbar splanchnicectomy is the most commonly employed surgical technic for the treatment of essential and malignant hypertension. The operative mortality for large numbers of unselected cases is low and is directly related to the status of the cardiovascular system prior to operation. For patients with persistent hypertension without cardiovascular disease there has been no mortality. For those with early changes in the cerebral, cardiac or renal areas it is 0.5 per cent. For those with moderately advanced changes it is 1 per cent. For those with very advanced changes it is 11 per cent. The morbidity consists largely of minor pulmonary complications, such as atelectasis, retropleural hematomas or hemothorax, and postoperative neuritis. The complications resulting from postoperative bleeding require aspiration in 5 per cent of cases. Peripheral neuritis is moderately severe in the majority of cases. In occasional patients it may be either very severe or absent. Serious complications such as vascular accidents or renal failure are rare except in the most advanced cases. The period of hospitalization averages one month, and most patients are able to resume their occupations two months after leaving the hospital.

2. The most important result of this operation is prolongation of life. A sufficient number of cases have now been followed for periods of five to ten years after operation to demonstrate that the mortality rates have been lowered and the survival rates increased to a statistically significant degree in patients with persistent hypertension and cardiovascular changes ranging from slight to severe. While the mortality rates are also lower in surgically treated hypertensive patients having no cardiovascular disease or having the most advanced changes, the difference in the survival rate for such patients treated surgically when compared with those treated medically is not statistically significant for a follow-up period of five to ten years. It seems probable that a longer period of observation will indicate that operation is worth while in patients with persistent hypertension without cardiovascular disease.

3. The selection of cases for operation is based on the survival rates for surgically and nonsurgically treated hypertensive patients. The cases are divided into several categories according to the status of the cardiovascular system. In the first, there are no cardiovascular changes other than grade 1 eyeground abnormalities at most. Operation is not recommended for these patients at the present time unless symptoms are severe and unmanageable or the hypertension is severe as judged by the resting diastolic level (110 mm. or more). As indicated, the survival rate for surgically treated hypertensive patients having no cardiovascular changes of consequence, while higher than that for nonsurgically treated patients, has not as yet become statistically significant. It is expected that this will occur with a longer period of observation.

For hypertensive patients with early changes in the cerebral, cardiac or renal areas, or with grade 2, 3, or 4 eyegrounds without advanced changes in the other areas, the survival rate is significantly increased for surgically treated patients. Consequently surgical treatment is advised for these patients. For hypertensive patients with more advanced changes in the cerebral, cardiac and/or renal areas, the difference in the survival rates is significant and in favor of the surgically treated patients. Operation is urged in these cases.

For the patients with very advanced disease with pronounced changes in the various areas or with the most severe forms of the disorder (resting diastolic pressure 140 mm. or more combined with cardiovascular disease of consequence), the mortality rates for the first four years are significantly lower in the surgical series, but after that time there is no significant difference between the two series. It seems doubtful whether surgery is worth while in these cases. While in general surgery it is utilized principally in patients under 50 years of age, occasional exceptions are made to this rule.

For details concerning the grouping of hypertensive patients and the selection of patients for surgical treatment, the following articles are recommended. Smithwick, R. H.: The Surgical Physiology of Hypertension, *S. Clin. North America* **29**:1699-1730 (Dec.) 1949; and Conn, H. F.: Current Therapy, 1950, Philadelphia, W. B. Saunders Company, 1950, pp. 137-139.

ABSCESSES OF CORNEA

To the Editor:—About seven months ago a young woman had abscesses on the cornea of both eyes. She was blinded for two months. Her eyes pain occasionally, and there are still about twenty-five small abscesses on each cornea. Several months ago another physician administered aureomycin to no avail. What are the newer methods for treating this disease? Herbert Abel, M.D., Berlin, Germany.

ANSWER.—It would help in considering treatment of abscesses of the cornea to know the type and kind of organism responsible for the lesions. Since the introduction of the sulfonamide drugs in 1935, numerous compounds related to sulfanilamide have been tested for tissue tolerance and effectiveness against bacteria. Sulfapyridine, sulfathiazole and sulfadiazine have been used, but the most effective of the sulfonamide drugs and the one best tolerated is sulfacetimide, which may be instilled in the eye in 30 per cent solution. A 10 per cent ointment of sulfacetimide is also effective. Of the antibiotics, penicillin may be used in the eye or crystalline penicillin G may be administered intramuscularly. Streptomycin and thiazolsulfone (promizole®) are used for chronic granulomatous infections but are less effective for superficial ocular inflammations. Aureomycin also is more effective against intraocular infection by staphylococcus than most remedies.

In the case referred to it is difficult to conceive of a condition of the cornea made up of twenty-five or more abscesses. On the other hand, multiple discrete flecks on the cornea may be caused by exfoliation of epithelium with the absence of pus and lymph cells necessary to qualify the condition as an abscess. The sulfonamide drugs and antibiotics are useful only in combating infection. If the lesions of the cornea are due to some other condition, none of the aforementioned drugs is indicated.

CORONARY THROMBOSIS

To the Editor:—My brother has just had coronary thrombosis with infarction. Is it considered advisable for such a convalescent patient to be permanently on a diet which discourages the formation of cholesterin? Of what does such a diet consist? Are any other measures considered advisable during convalescence and recovery? M.D., South Carolina.

ANSWER.—The problem of defects of cholesterol metabolism in the initiation or aggravation of coronary atherosclerosis producing serious heart disease is at present unsolved. Much more investigation is required before one can give a full answer to several questions that deal with a patient who has had coronary heart trouble. The intrinsic production of cholesterol by any given person from any kind of food is perhaps more important than the actual amount of cholesterol in the food itself, although it is probable that an excess amount of cholesterol in the food may do harm in a candidate for coronary atherosclerosis. Also, the state of the coronary arterial walls and other factors not yet elucidated may play a role. It is well recognized now, for example, that it is the male, especially the muscular male, who is an early candidate. This brings up the matter of hormonal influences with respect both to cholesterol metabolism and to the cardiovascular system in general. Until more information on these problems is available, one cannot be dogmatic.

It would seem wise, however, to advise a patient who has had coronary heart disease to be temperate in all things, especially in diet. Since it is likely that the total calories

ingested play an important role, the diet should be kept at a reasonable number of calories for that particular person's size and activity, to avoid any gain in weight or to lose weight if there is a surplus; he should eat sparingly of cholesterol-rich foods, which include liver, cream, butter and eggs. Regular exercise in moderation, if it does not produce actual cardiac symptoms, is probably wise. Extra vitamins and drugs are, as far as is known, of relatively little importance (except for symptomatic treatment by nitrites). The use of visammin (khellin), iodides, thyroid and choline is still in the experimental stage.

CATARACTS

To the Editor:—**What is the present thought about operating on cataracts? Must the lens be completely "ripe" before surgical removal? When one eye is ready for surgical intervention and the other has 50 per cent vision, can one eye be operated on, or must surgical measures be delayed until both eyes are ready? How long is it safe to wait, in a case in which there is lack of vision as the result of cataract before there is danger of atrophy? In a patient who has been exposed to intense sunlight, how soon would cataract develop if this was the main etiologic factor? Is there any way to determine definitely whether intense sun rays have caused or contributed to the development of cataracts?**

M.D., New York.

ANSWER.—Operation for cataract is indicated when there is need of improvement in visual acuity and the probable need can be met by removal of cataract. As long as a patient has sufficient vision in one eye to meet his needs, operation for a cataract may well be deferred. A person who has only one eye in which useful vision could be obtained will need to have the lens removed at an earlier stage of maturity than will one who has two eyes, even though both eyes be clouded to an equal degree by cataract. The stage when a cataract is "ripe" is indefinite. It would be well to avoid use of the terms "ripeness" and "maturity" when speaking of cataracts and to consider only the extent to which they obscure vision. A sclerosing lens may be "ripe" from the point of view of pathologic change long before it is necessary to remove it on the basis of vision. In a person with bilateral cataract one eye may be practically blind while vision in the fellow eye is approximately 50 per cent of normal. A good practical rule to follow in such cases is to defer operation for cataract, no matter what its stage of maturity, as long as the other eye has vision of 20/70 or better with correction. Industrial requirements of some factory employees, railroad track foremen and engineers, who must have a minimal visual acuity with glasses, make removal of cataract obligatory when it reduces vision to a stated amount regardless of its pathologic stage of maturity. Circumstances of employment vary in different industries and different localities.

There is no likelihood of "atrophy" from retention of a mature uncomplicated cataract. A cataract that has a tendency to swell or to exfoliate capsular epithelial cells or in some other way menaces the integrity of the eye should be removed regardless of the vision in the fellow eye. Cataracts of this type are relatively rare. There is little evidence to support the contention that cataract is induced by exposure to intense sunlight. In a healthy, well nourished person there is some doubt whether sunlight has any effect on the development of cataract. It would be difficult to determine definitely the effect on the lens of prolonged exposure to bright sunlight.

OBSTRUCTION AFTER TRANSURETHRAL RESECTION

To the Editor:—**Since a patient underwent a transurethral prostectomy four months ago he has had difficulty in voiding. He has to undergo dilatation with sounds every ten days to two weeks. How long will it be necessary to keep up the dilatation, and is there any other appropriate treatment? This was a case of benign hypertrophy. Would this complication have occurred if a suprapubic operation had been performed? What is the status of the use of galvanic current with a copper electrode?**

M.D., Illinois.

ANSWER.—Obstruction following transurethral prostatic resection may be due to several causes. Stricture of the urethra is probably the most common cause. A cystoscopic examination should be made in order to exclude from the diagnosis obstruction due to residual prostatic tissue at the bladder neck as the result of incomplete resection. It is not stated whether the site of the obstruction is an anterior urethra or posterior urethra. Postoperative stricture, if present, should be treated either by divulsion or urethrotomy as may be indicated. Contraction of the bladder neck has sometimes followed suprapubic prostectomy, although it does not occur as often as with transurethral resection. Treatment with a galvanic current is of doubtful value in this condition.

MERCURY IN THE URINE

To the Editor:—**A patient complains of neuritis and general muscular pains. All examinations are negative except for 2 micrograms of mercury in 100 cc. of urine, or 0.002 mg. per hundred cubic centimeters. Results were the same in two examinations. This patient has been a dental technician for ten years and has handled mercury in the palm of her left hand. Do these observations constitute mercury poisoning, and if so, what is to be done?**

Mary L. Rosenstiel, M.D., Freeport, Ill.

ANSWER.—The normal daily intake of mercury is in the range of 1 to 10 micrograms, up to half of which may be excreted in the urine. The patient is excreting about 30 micrograms in twenty-four hours (assuming a urine volume of 1,500 cc.), and this indicates a slightly excessive exposure to mercury. However, persons with amalgam fillings frequently show elevated excretion of mercury in the same range without clinical symptoms of mercurialism. By way of orientation a high grade exposure gives urinary excretion values of 100 micrograms of mercury daily. Neuritis and general muscular pains are not notably associated with, and are of rare occurrence in, mercury poisoning. Chronic poisoning may be characterized by stomatitis and renal irritation with additional nervous and nutritional disturbances. Especially characteristic are fine tremors of the hands. Mercury is appreciably volatile, and when inhaled it is more toxic than when taken by mouth or through the skin. Quantities of the order of 2 micrograms of mercury per cubic meter of air have been claimed to cause chronic mercury poisoning (Stock, A.: *Ber d. deutsch. chem. Gesellsch.* **75**:1530, 1942). On the other hand, L. I. Grossmann and J. B. Dannenberg (*J. Dent. Research* **28**:435, 1949) investigated the extent of mercury contamination of air in dental offices and laboratories. They employed a sensitive portable mercury vapor detector and concluded that the concentration of mercury vapor in the air is too low (of the order of about one-tenth the probable safe concentration of 0.1 mg. per cubic meter as established by the American Standards Association) to be of any toxicologic significance. It is highly improbable that the illness of the patient is associated with exposure to mercury.

VAGINAL DISCHARGE IN YOUNG GIRLS

To the Editor:—**Sisters aged 8 and 6 years have had a persistent vaginal discharge for a year. Preceding the appearance of the discharge both girls had been ill with severe purulent nasopharyngitis. Smears for gonococci were negative; results of urinalyses have been normal. Two courses of penicillin injections were ineffectual. A pediatrician saw these girls in consultation and advised tonsillectomy and adenoidectomy, and 1 per cent merbromin instillations. This advice was followed without benefit. What treatment can be suggested?**

M.D., Illinois.

ANSWER.—Before treating the persistent vaginal discharge a further attempt should be made to determine the cause. One would like to know what organisms are seen or cultured from the vaginal smears and secretion—whether the organisms are gram positive or gram negative, whether the smears show many or few leukocytes and what kind, and whether there are any intracellular organisms. Monilia also may be found in smears and cultures of vaginal discharges when suitable stains and culture mediums are used. Trichomonas vaginalis can be demonstrated in a hanging drop of 0.1 per cent safranine solution, which forms a pink background but does not stain these organisms. Nonspecific leukorrhea may accompany pin worms or other rectal irritation or proctitis. Pinworms especially should be looked for in two sisters as a cause of vulvovaginitis. Two methods are available, the cellophane anal swab and focusing a flashlight on the anus at night, after it is spread apart. The pinworms are treated in the usual manner by oral medication with methylrosaniline chloride pills or crystalline *p*-benzylphenylcarbamate (diphenan®). Foreign bodies in the vagina may be causes, but hardly likely in two sisters. An infant vaginoscope may be revealing as to hidden pathology. If an organism can be grown in pure culture from the vaginal secretion, sensitivity tests should be run with the various sulfonamide drugs and antibiotics, and the preparation that inhibits the organism best in vitro should be used in therapy (orally or by injection). In the treatment of vaginitis due to trichomonas silver picrate vaginal suppositories, infant size, may be used each night for a week or two. Floraquin® (contains diiodohydroxyquinoline, lactose, anhydrous dextrose and boric acid) or iodochlorohydroxyquinoline (vioform®) vaginal tablets or insufflation is also recommended. Methylrosaniline chloride (gentian violet) solution 1 per cent instilled into the vagina two or three times daily for a few days will aid in clearing up monilial infection. Monilial vaginitis also responds to caprylic compounds (naprylate®) suppositories or insufflation. Vaginal mycosis may be eradicated by ricinoleic acid jelly injected into the vagina.

MONGOLISM

To the Editor:—On Feb. 21, 1950, I delivered a typical mongolian idiot. The mother was 38 years of age and had had two previous pregnancies. She has a boy aged 12 years who has diabetes and a girl aged 10 years who had convulsions shortly after birth, which we attributed to a birth injury, and which have not recurred. This child is apparently normal. The mongolian idiot was a female, premature, and weighed 5 pounds 10 ounces (2,551 Gm.) at birth. The mother's last menstrual period began June 14, 1949. Prior to this, on April 26, 1949, she had had rubella. Would this attack of rubella prior to the beginning of pregnancy have any possible relationship to the development of mongolism in the fetus?

M.D., New York.

ANSWER.—Medical literature reveals no evidence that when conception takes place after recovery of the mother from a virus disease there would be any causal relationship to malformation in the offspring. The fact that this mother had rubella several months before conception would indicate a satisfactory maternal antibody titer to this virus. It is likely that a transitory passive immunity would be inherent to the newborn. The numerical probability of the development of anomalies is interlocked with a fresh occurrence of a virus disease during the first or second trimester of pregnancy. From the record of the other 2 children it is obvious that other constitutional parental factors must be considered. The presence of a virus (inactive) is not considered to affect gestation. Only subclinical or frank disease could influence the probability of this mongoloid state.

INTRAORAL CHICKENPOX LESIONS

To the Editor:—Is there any treatment recommended for the intraoral eruption of chickenpox? I have seen many of these recently. The children suffer considerably.

Walter Newman, M.D., Springfield, Mass.

ANSWER.—Two per cent aqueous solution of methylrosaniline chloride (gentian violet medicinal) may be applied to the lesions with a cotton applicator. Tincture of sodium ethylmercurithiosalicylate (merthiolate®) will also serve the same purpose. Generally lesions of chicken pox are not numerous on mucous membranes; they generally rupture early and heal in two or three days.

INFANTILE UTERUS

To the Editor:—I would like information on some hormone treatment for a young woman with an infantile uterus who is fairly regular in her menstrual periods. This condition is associated with vaginismus.

C. P. Custer, M.D., Stockton, Calif.

ANSWER.—A true infantile uterus is rare. A more proper term is hypoplastic uterus. Since this patient menstruates fairly regularly and presumably in normal amounts, there is no need for any treatment directed at the uterus. A small uterus is not a cause of vaginismus. This condition, which is due to a spasm of the muscles surrounding the vagina, may or may not be associated with painful intercourse. If the patient is infertile, a thorough examination should be made of her and her husband to find a possible reason, because a hypoplastic uterus associated with normal menstruation is not often the cause. If treatment is desired for the vaginismus, more than a physical examination is necessary because often there is a large psychic factor. Nearly always the patient abhors sexual intercourse and, because of this, involuntarily makes an effort to keep out the penis. An examination under general anesthesia will usually reveal ample space for coitus unless, of course, the dyspareunia is associated with an intact hymen, which is common. Sometimes dyspareunia is due to a special cause, such as a rigid hymenal ring, an irritating vaginal discharge, vulvitis, chronic endocervicitis and cervicitis. In some cases the fault lies with the husband, who, because of lack of knowledge of the proper technic of intercourse, clumsiness or inconsiderateness, may cause pain.

OTOSCLEROSIS AND LIFE INSURANCE

To the Editor:—I was rejected for life insurance because of deafness due to otosclerosis. It is my contention that otosclerosis does not in any way affect life expectancy. Can an authoritative opinion be furnished?

M.D., Michigan.

ANSWER.—Otosclerosis is a lesion confined to the labyrinthine capsule involving the stapes foot plate, with ankylosis. The cause of the bony condition is not known; it is not associated with any other disease except in rare cases in which it is associated with blue scleras and brittle bones in patients with the history of frequent fractures. There is nothing about the otosclerotic lesion itself which in any way impairs the general health or decreases life expectancy.

TESTOSTERONE PROPIONATE

To the Editor:—A white man aged 60 for nearly two years has been insisting on receiving injections of testosterone propionate, 25 mg., at increasingly frequent intervals, until now he is getting an injection at about four day intervals. Is it likely that harm may come if such injections are continued?

R. L. Donald, M. D., Meridian, Miss.

ANSWER.—There is no good evidence that harm may be done by the administration of this dose of testosterone propionate. If the man had carcinoma of the prostate, its growth might be accelerated by the administration of this material. If carcinoma is not present, its development will not be induced by the administration of androgens.

CANCER OF THE BREAST

To the Editor:—I have been treating for the past fourteen months a patient with an advanced breast cancer. A radical removal in July 1944 was followed by thirteen high voltage roentgen ray treatments. Two years later, in February 1947, the patient fell; the resulting pain in the left hip was diagnosed as arthritis and treated with diathermy until October 1947. In March 1948 she had severe pain and while under ether anesthesia was transported 25 miles to the hospital by ambulance. An advanced metastasis was discovered and treated with ten courses of high voltage roentgen radiation to the hips and ovaries. In February 1949 testosterone propionate, 75 mg. in oil, was given three times a week. In June the dosage form was changed to the aqueous solution of testosterone. There has been little progress in the carcinomatous condition since February 1949. However a new problem began to arise in October 1949. Injection of a former site proved difficult and when the needle was withdrawn it was plugged. I have continued the use of 25 gage needles for all injections. This plugging of the needle continued to progress on injecting over the entire body, so that it has become impossible to give any intramuscular injections. This sticky gelatinous condition of the muscles continued to spread so generally that it is found even in the calf muscles, where injections have never been made. We have continued giving the hormones by means of subcutaneous administration, despite the fact that three sterile abscesses have occurred. The condition is peculiar in that the patient seems to suffer no loss of strength, nor does she have any subjective complaints of weakness or pain. I would like to know of any reason for not continuing the subcutaneous injections of both testosterone and progesterone, which she is now getting.

D. H. Webster, M.D., Au Sable Forks, N. Y.

ANSWER.—There is no objection to continuing the injections of testosterone and progesterone. It is difficult to give testosterone through a 25 gage needle. It is usually preferable to use a 20 gage needle. The dose should probably be not less than 100 mg. of testosterone propionate three times a week.

POLIOMYELITIS IN SUMMER CAMP

To the Editor:—Kindly inform me whether cases of poliomyelitis are more likely to develop in a summer camp if an epidemic occurred there the previous year than if no cases had developed in it for the past several years.

M.D., West Virginia.

ANSWER.—Many attempts have been made to determine whether the presence of poliomyelitis virus in a camp or institution predisposes to the further development of cases in that same area when there has been a sufficient interval for the virus to have been eliminated from the persons who have been in the camp or institution. As far as is known human beings are the main reservoir for poliomyelitis virus, and no one has succeeded in proving that poliomyelitis in a summer camp will carry over to succeeding seasons.

REMOVAL OF LEAD FROM SKIN

To the Editor:—What information is available on the removal of lead from a person by using a machine with a positive and a negative pole—I understand that the patient places the affected part in a solution attached to the positive pole and the other pole is attached to some other part of the body.

G. S. Harker, M.D., Nogales Ariz.

ANSWER.—This method was first devised by Sir Thomas Oliver in England. It was of no value in removing lead from the body. What little lead did appear in the fluid around the electrodes must have come from the skin. This method was abandoned long ago by everyone, including Dr. Oliver.

CANCER TESTS

To the Editor:—Is there any generally accepted blood test for cancer?

Alan L. Hays, M.D., Odessa, Texas.

ANSWER.—There is no generally accepted blood test for cancer at the present time. In the case of metastatic prostatic carcinoma the serum acid phosphatase determination has some usefulness. The literature concerning diagnostic blood tests proposed for cancer has been reviewed recently by F. Homburger (*Cancer* **3**:143, 1950).

JOURNALS ABSTRACTED IN THE CURRENT MEDICAL LITERATURE DEPARTMENT, MAY-AUGUST 1950

Titles have been listed or abstracts made of important articles in the following journals in the Current Literature Department of THE JOURNAL during the past four months. Any of the journals, except those starred, will be lent by THE JOURNAL to subscribers in Continental United States and Canada and to members of the American Medical Association for a period not exceeding five days. Three journals may be borrowed at a time. No journals are available prior to 1939. Requests for periodicals should be addressed to the Library of the American Medical Association and should be accompanied by stamps to cover postage (6 cents if one and 18 cents if three periodicals are requested). Thus most of these journals are accessible to the general practitioner.

Acta cardiologica. Brussels.
Acta chirurgica belgica. Brussels.
Acta chirurgica Scandinavica. Stockholm.
Acta clinica belgica. Brussels.
Acta medica Scandinavica. Stockholm.
Acta ophthalmologica. Copenhagen.
Acta orthopaedica Scandinavica. Copenhagen.
Acta oto-laryngologica. Stockholm.
Acta paediatrica. Stockholm.
Acta physiologica Scandinavica. Stockholm.
Acta radiologica. Stockholm.
Acta tuberculosea Scandinavica. Copenhagen.
American Heart Journal. St. Louis
American Journal of Clinical Pathology. Baltimore.
American Journal of Digestive Diseases. Fort Wayne, Ind.
*American Journal of Diseases of Children. A. M. A., Chicago.
American Journal of Hygiene. Baltimore.
American Journal of the Medical Sciences. Philadelphia.
American Journal of Medicine. New York.
American Journal of Obstetrics and Gynecology. St. Louis.
American Journal of Ophthalmology. Chicago.
American Journal of Orthopsychiatry. New York.
American Journal of Pathology. Ann Arbor, Mich.
American Journal of Physiology. Baltimore.
American Journal of Psychiatry. New York.
American Journal of Public Health. New York.
American Journal of Roentgenol. and Radium Therapy. Springfield, Ill.
American Journal of Surgery. New York.
American Journal of Syphilis, Gonor. and Venereal Diseases. St. Louis.
American Journal of Tropical Medicine. Baltimore.
American Practitioner and Digest of Treatment. Philadelphia.
American Review of Tuberculosis. New York.
Anales de la Cátedra de clínica médica. Buenos Aires.
Anales de medicina y cirugia. Barcelona.
Anesthesiology. New York.
Angiology. Baltimore.
Annales de l'Institut Pasteur. Paris.
Annals of Allergy. Minneapolis.
Annals of Eugenics. London.
Annals of Internal Medicine. Lancaster, Pa.
Annals of Otology, Rhinology and Laryngology. St. Louis.
Annals of the Rheumatic Diseases. London.
Annals of Surgery. Philadelphia.
Annals of Tropical Medicine. Liverpool.
Annals of Western Medicine and Surgery. Los Angeles.
Archiv für Dermatologie und Syphilis. Heidelberg.
Archiv für Kinderheilkunde. Stuttgart.
*Archives of Dermatology and Syphilology. A. M. A., Chicago.
Archives of Disease in Childhood. London.
Archives françaises de pédiatrie. Paris.
*Archives of Industrial Hygiene and Occupational Medicine. A. M. A., Chicago.
*Archives of Internal Medicine. A. M. A., Chicago.
Archives des maladies du coeur. Paris.
*Archives of Neurology and Psychiatry. A. M. A., Chicago.
*Archives of Ophthalmology. A. M. A., Chicago.
*Archives of Otolaryngology. A. M. A., Chicago.
*Archives of Pathology. A. M. A., Chicago.
Archives of Pediatrics. New York.
Archives of Physical Medicine. Chicago.
*Archives of Surgery. A. M. A., Chicago.
Archivio di scienze biologiche. Bologna.
Archivos de pediatría del Uruguay. Montevideo.
Arizona Medicine. Phoenix.
Arquivos de neuro-psiquiatria. São Paulo.
Australian Journal of Experimental Biology and Medical Science. Adelaide.
Australian and New Zealand Journal of Surgery. Sydney.
Beiträge zur klinischen Chirurgie. Berlin.
Berliner medizinische Zeitschrift. Berlin.
Bibliotek for Laeger. Copenhagen.
Biochemical Journal. London.
Blood. New York.
Boletim clinico dos hospitais civis de Lisboa. Lisbon.
Brain. London.
Brasil medico. Rio de Janeiro.
British Heart Journal. London.
British Journal of Cancer. London.
British Journal of Dermatology and Syphilis. London.
British Journal of Experimental Pathology. London.
British Journal of Industrial Medicine. London.
British Journal of Ophthalmology. London.
British Journal of Plastic Surgery. Edinburgh.
British Journal of Radiology. London.
British Journal of Surgery. Bristol.
British Journal of Tuberculosis. London.
British Journal of Urology. London.
British Journal of Venereal Diseases. London.
British Medical Journal. London.
Bulletin of the Johns Hopkins Hospital. Baltimore.
Bulletin of the Los Angeles Neurological Society. Los Angeles.
Bulletin of the New York Academy of Medicine. New York.
Bulletin of School of Medicine of University of Maryland. Baltimore.
California Medicine. San Francisco.
Canadian Journal of Public Health. Toronto.
Canadian Journal of Research. Medical Sciences. Ottawa.
Canadian Medical Association Journal. Montreal.
Cancer. New York.
Cancer Research. Chicago.
Cardiologia. Basel.
Chinese Medical Journal. Shanghai.
Cincinnati Journal of Medicine. Cincinnati.
Circulation. New York.
Clinical Science. London.
Connecticut State Medical Journal. Hartford.
Delaware State Medical Journal. Wilmington.
Deutsche medizinische Wochenschrift. Stuttgart.
Diseases of Chest. Chicago.
Diseases of Nervous System. New York.
Edinburgh Medical Journal. Edinburgh.
Electroencephalography and Clinical Neurophysiology. Boston.
Endocrinology. Springfield, Ill.
Experimental Medicine and Surgery. Brooklyn.
Finska läkaresällskapets handlingar. Helsingfors.
Gastroenterology. Baltimore.
Geburtshilfe und Frauenheilkunde. Stuttgart.
Geriatrics. Minneapolis.
Giornale di clinica medica. Parma.
Glasgow Medical Journal. Glasgow.
GP (Journal of American Academy of General Practice). Kansas City, Mo.
Hawaii Medical Journal. Honolulu.
Helvetica paediatrica acta. Basel.
Illinois Medical Journal. Chicago.
Indian Journal of Medical Research. Calcutta.
Indian Medical Gazette. Calcutta.
Industrial Medicine and Surgery. Chicago.
International Journal of Leprosy. New Orleans.
Irish Journal of Medical Science. Dublin.
Journal of Allergy. St. Louis.
Journal of American Medical Women's Association. Nashville, Tenn.
Journal of Applied Physiology. Washington, D. C.
Journal of the Arkansas Medical Society. Fort Smith.
Journal of Aviation Medicine. St. Paul.
Journal of Bacteriology. Baltimore.
Journal of Bone and Joint Surgery. Boston.
Journal de chirurgie. Paris.
Journal of Clinical Endocrinology. Springfield, Ill.
Journal of Clinical Investigation. Cincinnati.
Journal of Clinical Pathology. London.
Journal of Endocrinology. London.
Journal of Experimental Medicine. New York.
Journal of the Florida Medical Association. Jacksonville.
Journal of Gerontology. Springfield, Ill.
Journal of Hygiene. London.
Journal of Immunology. Baltimore.
Journal of the Indiana State Medical Association. Indianapolis.
Journal of Infectious Diseases. Chicago.
Journal international de chirurgie. Brussels.
Journal of International College of Surgeons. Chicago.
Journal of Investigative Dermatology. Baltimore.
Journal of the Iowa State Medical Society. Des Moines.
Journal of the Kansas Medical Society. Topeka.
Journal of Laboratory and Clinical Medicine. St. Louis.
Journal of Laryngology and Otology. London.
Journal of the Maine Medical Association. Portland.
Journal of the Medical Association of the State of Alabama. Montgomery.

*Cannot be lent.

Journal of the Medical Association of Georgia. Atlanta.
Journal of the Medical Society of New Jersey. Trenton.
Journal of Mental Science. London.
Journal of the Michigan State Medical Society. Lansing.
Journal of the Missouri State Medical Association. St. Louis.
Journal of the Mount Sinai Hospital. New York.
Journal of National Cancer Institute. Washington, D. C.
Journal National Malaria Society. Columbia, S. C.
Journal of Nervous and Mental Disease. New York.
Journal of Neurology, Neurosurgery and Psychiatry. London.
Journal of Neuropathology and Experimental Neurology. Baltimore.
Journal of Neurophysiology. Springfield, Ill.
Journal of Neurosurgery. Springfield, Ill.
Journal of Nutrition. Philadelphia.
Journal of Obstetrics and Gynaecology of the British Empire. Manchester.
Journal of the Oklahoma State Medical Association. Oklahoma City.
Journal of Pathology and Bacteriology. Edinburgh.
Journal of Pediatrics. St. Louis.
Journal of Pharmacology and Experimental Therapeutics. Baltimore.
Journal of the Philippine Medical Association. Manila.
Journal of Physiology. Cambridge.
Journal of the Royal Institute of Public Health and Hygiene. London.
Journal of the South Carolina Medical Association. Florence.
Journal of the Tennessee State Medical Association. Nashville.
Journal of Thoracic Surgery. St. Louis.
Journal of Tropical Medicine and Hygiene. London.
Journal d'urologie. Paris.
Journal of Urology. Baltimore.
Journal of Venereal Disease Information. Washington, D. C.
Journal-Lancet. Minneapolis.
Kentucky Medical Journal. Bowling Green.
Klinische Wochenschrift. Heidelberg.
Lancet. London.
Laryngoscope. St. Louis.
Laval Médical. Quebec.
Lyon chirurgical. Paris.
Maandschrift voor kindergeneeskunde. Leyden.
Medical Annals of the District of Columbia. Washington.
Medical Journal of Australia. Sydney.
Medicina. Buenos Aires.
Medicine. Baltimore.
Medisch maandblad. Djakarta.
Medizinische Klinik. Munich.
Memorias do Instituto Oswaldo Cruz. Rio de Janeiro.
Mental Hygiene. Albany, N. Y.
Military Surgeon. Washington, D. C.
Minerva medica. Turin.
Minnesota Medicine. St. Paul.
Mycopathologia. The Hague.
Nebraska State Medical Journal. Lincoln.
Nederlandsch tijdschrift voor geneeskunde. Amsterdam.
Nederlandsch tijdschrift voor verloskunde en gynaecologie. Haarlem.
New England Journal of Medicine. Boston.
New Orleans Medical and Surgical Journal. New Orleans.
New York State Journal of Medicine. New York.
Nordisk medicin. Stockholm.
North Carolina Medical Journal. Winston-Salem.
Northwest Medicine. Seattle.
Occupational Therapy and Rehabilitation. Baltimore.
Ohio State Medical Journal. Columbus.
Oncologia. Basel.
Oral Surgery, Oral Medicine and Oral Pathology. St. Louis.
Pediatria. Naples.
Pediatrics. Springfield, Ill.
Pennsylvania Medical Journal. Harrisburg.
Physiological Reviews. Baltimore.
Plastic & Reconstructive Surgery. Baltimore.
Policlinico (Med. Sect.). Rome.
Policlinico (Pract. Sect.). Rome.
Postgraduate Medicine. Minneapolis.
Practitioner. London.
Praxis. Bern.
Prensa médica argentina. Buenos Aires.
Presse médicale. Paris.
Proceedings of Royal Society of Medicine. London.
Proceedings of the Society for Experimental Biology and Medicine. Utica, N. Y.
Progrès médical. Paris.
Psychiatric Quarterly. Utica, N. Y.
Psychiatry. Washington, D. C.
Psychoanalytic Quarterly. Albany, N. Y.
Psychoanalytic Review. Albany, N. Y.
Psychosomatic Medicine. New York.
Public Health Reports. Washington, D. C.
Puerto Rico Journal of Public Health and Tropical Medicine. San Juan.
Quarterly Journal of Medicine. Oxford.
Quarterly Journal of Studies on Alcohol. New Haven, Conn.
Radiology. Syracuse, N. Y.
Review of Gastroenterology. New York.
Revista de la Asociación médica argentina. Buenos Aires.
Revista brasileira de medicina. Rio de Janeiro.
Revista clínica española. Madrid.
Revista clínica de São Paulo. São Paulo.
Revista cubana de pediatría. Havana.
Revista médica de Chile. Santiago.
Rhode Island Medical Journal. Providence.
Rivista di clinica pediatrica. Florence.
Rocky Mountain Medical Journal. Denver.
Schweizerische medizinische Wochenschrift. Basel.
Semaine des hôpitaux de Paris. Paris.
Semana médica. Buenos Aires.
Settimana medica. Florence.
South African Medical Journal. Cape Town.
South Dakota Journal of Medicine. Sioux Falls.
Southern Medical Journal. Birmingham, Ala.
Southern Surgeon. Atlanta, Ga.
Southwestern Medicine. El Paso, Texas.
Surgery. St. Louis.
Surgery, Gynecology and Obstetrics. Chicago.
Texas State Journal of Medicine. Fort Worth.
Thorax. London.
Transactions of the Royal Society of Tropical Medicine and Hygiene. London.
Tubercle. London.
Ugeskrift for laeger. Copenhagen.
United States Armed Forces Medical Journal. Washington, D. C.
Urologic and Cutaneous Review. West Palm Beach, Fla.
Virginia Medical Monthly. Richmond.
Western Journal of Surgery, Obstetrics and Gynecology. Portland, Ore.
West Virginia Medical Journal. Charleston.
Wiener klinische Wochenschrift. Vienna.
Wiener medizinische Wochenschrift. Vienna.
Wisconsin Medical Journal. Madison.
Yale Journal of Biology and Medicine. New Haven.
Zeitschrift für Kinderheilkunde. Heidelberg.
Zeitschrift für klinische Medizin. Heidelberg.
Zentralblatt für Chirurgie. Leipzig.
Zentralblatt für Gynäkologie. Leipzig.

SUBJECT INDEX

This is an index to all the reading matter in THE JOURNAL. In the Current Medical Literature Department only the articles which have been abstracted are indexed.

The letters used to explain in which department the matter indexed appears are as follows. "BI," Bureau of Investigation; "E," Editorial; "C," Correspondence; "OS," Organization Section; "ab," abstracts; the asterisk (*) indicates an original article in THE JOURNAL.

This is a subject index and one should, therefore, look for the subject word, with the following exceptions: "Book Notices," "Deaths," "Medicolegal Abstracts" and "Societies" are indexed under these titles at the end of the letters "B," "D," "M," and "S." Matter pertaining to the Association is indexed under "American Medical Association." The name of the author, in brackets, follows the subject entry.

For the author index see page 1585.

A

A COMPOUND of Kendall: See Dehydrocorticosterone
A.C.E.
treatment of acute alcoholic states, 1160—E
treatment of rheumatoid arthritis, [Polley & Mason] *1478
ACTH
cardiovascular lesions and, [Berthrong] 1024—ab
effect on anaphylactoid reaction, [Selye] 318—ab
effect on beryllium granulomatosis, [Kennedy] 1518—ab
effect (physiologic), [Sprague] 594—ab
epinephrine effect on, [Recant] 1025—ab
exhibit, New York City, 664
fat metabolism and fatty infiltration of liver relation to [Archer] 570—C
in surgery, response of eosinophils to, [Roche] 925—ab
supply; policy of Armour Laboratories, [Mote] 831—C
supply, what part of pituitary used in manufacture? 1380
tool of clinical and laboratory research, [Spies] 321—ab
toxicity: peritonitis [Beck] 1518—ab
toxicity, refractory state to, development, [Gordon] 769—ab
Treatment: See also Alcoholism; Arthritis; Asthma; Dermatomyositis; Eclampsia; Eosinophilia; Loeffler's Syndrome; Lupus erythematosus; Myasthenia Gravis; Psoriasis
treatment, course in use of ACTH, Chicago, 1188
treatment, electroencephalographic and neuropsychiatric changes, [Hoefer & Glaser] *620
treatment plus cortisone of lupus erythematosus, [Baehr] 1118—ab
treatment plus cortisone of rheumatic fever, [McEwen] 1118—ab
treatment, vs. pituitary implantation for chronic arthritis, Sweden, 759
ABBOTT-Miller Tube: See Duodenal Tube
ABDOMEN: See also Gastrointestinal Tract; Pelvis; Peritoneum
Ascites: See Ascites
Distension: See Flatulence
pain from mephenesin (Tolserol), [Kositchek & Barnet] *22
pain of right upper quadrant, 858
Surgery: See also Cesarean Section; Gallbladder surgery
surgery, abdominoanal sigmoid-rectum resection in megacolon, [Smith] 1122—ab
surgery, disruption of wounds, [Wolff] 1365—ab
ABEL Prize: See Prizes
ABNORMALITIES: See also Crippled; Deformities; Dwarfism; Monsters; under specific organs and regions
congenital absence of limbs, 694
recurrent anencephaly, [Feuerlicht] *23
ABORTION
criminal, induced by intrauterine pastes, [Dutra & others] *865
infected, aureomycin for, [Gilbeau & others] *522
legal induction, Denmark, 1015
repeated miscarriages, 939
ABRASIVE BALLOON: See Stomach cancer
ABSCESS: See also Ulcers; under organ affected as Brain; Cornea; Lungs
injection of pertussis vaccine combined with diphtheria and tetanus toxoids cause, 1222
perirectal, Salmonella oranienburg in, [Smiley & others] *430
tuberculous, involving soft tissue above left clavicle, 858
ABSORPTION: See under organ, region or substance concerned as Fat; Lead; Rutin
ACADEMY: See also under names of specific academies as American Academy: National Academy; New York Academy
of Sciences discusses treatment of brucellosis, Italy, 1110
U. S. Medical Academy, 1185; 1263
ACCIDENTS: See Trauma
Automobile: See Automobiles
First Aid for: See First Aid
ACETOMEROCTOL
Merbac, N.N.R. (description), 814; (Schiefelin) 814
ACETOXYPREGNENOLONE
treatment of rheumatoid arthritis, [Polley & Mason] *1476; *1478
ACHLORHYDRIA: See Stomach acidity
ACID
acetylsalicylic (enteric-coated aspirin), [Talkow] 204—ab
acetylsalicylic, treatment of vascular diseases, [Gibson] 207—ab
adenylic, for pruritus in Hodgkin's disease, 644—ab
Amino Acids: See Amino Acids
p-aminosalicylic, plus streptomycin in ocular tuberculosis, [Bietti] 839—ab
p-aminosalicylic, plus streptomycin in tuberculosis, [Anderson] 841—ab
p-aminosalicylic, treatment of brucellosis, Italy, 1110
p-aminosalicylic, treatment of pulmonary tuberculosis, [Lehmann] 504—ab; [Difs] 932—ab; (Swedish report) 1517—ab
p-aminosalicylic, treatment of tuberculosis [Madigan] 849—ab
p-aminosalicylic, treatment of tuberculosis, liver function during, [Baffi] 1215—ab
ascorbic, content of grapefruit juice, Council report, 439
ascorbic, effects on exposure to cold, [Therien] 318—ab
ascorbic, plus antihistamines for common colds, [Cowan & Diehl] *421
ascorbic, plus deoxycortone, for rheumatoid arthritis, [Spies] 208—ab; [Le Vay] 602—ab; [Kersley] 1372—ab
ascorbic, plus desoxycorticosterone in rheumatoid arthritis, [Kling] *791
Ascorbic, Sodium Salt of: See Sodium ascorbate
boric, warning on oxylin tablets, (Council report) 241
Carbolic: See Phenol
Cevitamic: See Acid, ascorbic
fatty, sparing action, 1160—E
fatty, therapy, history of, [Theodore] *226
folic, antagonists for acute leukemia, [Sacks] 496—ab; [Heinle] 599—ab; [Silverman] 1523—ab
folic, antagonists in leukemia, [Heinle] 599—ab
folic, treatment of pernicious anemia and funicular myelosis, [Jequier] 1215—ab
Hyaluronic: See Hyaluronidase
Iodoacetic, dermatitis from, [Marriott] 761—C
Mesoxalic, Ureide of: See Alloxan
Nicotinic, Diethylamide of: See Nikethamide
nicotinic, treatment of migraine, 214
pantothenic, for burning feet (nutritional melalgia), [Vernon] *799
p-sulfamidophenylazosalicylic, treatment of trachoma, [Tsopelias] 1213—ab
sweat, 859
undecylenic, treatment of psoriasis, [Guy] 761—C; 1222
Uric: See Uric Acid
ACIDITY, Gastric: See Stomach acidity
ACIDOSIS
fluid therapy, [Darrow & Pratt] *365
ACNE: See also Furunculosis
vulgaris, irradiation in, [Quastler] 771—ab
vulgaris, photosensitization therapy of, 780
ACRODYNIA: See Erythredema
ACROPARESTHESIA, (reply) [McKeever] 216
ACTINOMYCES, Antibiotic Prepared from: See Streptomycin
ACTINOMYCOSIS
treatment, aureomycin, [McVay & others] *1067
ACTIVITY Following Operation or Illness: See Convalescence
ADAPTATION, diseases of, [Selye] 685—ab
ADDICTION: See Alcoholism; Narcotics
ADDISON'S ANEMIA: See Anemia, Pernicious
ADDISON'S DISEASE
complicating pregnancy, [Brent] 1364—ab
etiology; low sodium diet, [Friedenberg] 925—ab
treatment, intraoral desoxycorticosterone acetate, [Anderson] 139—ab
ADDRESSES: See Lectures
at A.M.A. Session: See American Medical Association
ADENOIDS
diseases, [Küstner] 209—ab
ADENOMA
adenomectomy according to Millin, 1110
chromophobe, [Antoni] 603—ab
Nontoxic, of Thyroid: See Goiter
Toxic, of Thyroid: See Goiter, Toxic
ADENOMYOSIS: See Endometriosis
ADIPHENINE
hydrochloride, effect on motor activity of small intestine, [Chapman & others] *629
ADOLESCENCE
Midcentury White House Conference on Children and Youth, [Heimholz] *625
precocious puberty, 1381
ADRENALIN: See Epinephrine
ADRENALS: See also Addison's Disease
Adrenocorticotropic Hormone: See ACTH
Cortex Compound E: See Cortisone
cortex extract, ACE treatment of acute alcoholic states, 1160—E
cortex extract, cortin treatment of poliomyelitis, [Binet] 851—ab
cortex extracts treatment of rheumatoid arthritis, [Polley & Mason] *1474
Cortex Hormone: See Desoxycortone; Desoxycorticosterone
cortex, role in hypertension, [Etienne-Martin] 1526—ab
epinephrine effect on pituitary-adrenocortical system, [Recant] 1025—ab
Hormone (Sympathetic): See Epinephrine
hypoadrenalism in familial hemochromatosis, [Capretti] 209—ab
roentgen visualization by filling stomach with air, [Kraus] 132—C
salt conservation mechanism, 1059—ab
tumors, pheochromocytoma, benzodioxan test, [Goldenberg & Aranow] *1139
tumors, pheochromocytoma and hypertension, 183—E; (test dose of 933—F), [Calkins] 596—ab
ADRENOCORTICOTROPHIC Hormone: See ACTH
ADVERTISING
antihistamines for colds, 744—E
of British United Provident Association regarding National Health Service, 746—E
free drug samples in, [Carson] 198—C; [Howe] 1114—C; [Frack] 1360—C
program of A.M.A. to promote voluntary health insurance plans and to prevent state medicine, 744—E; 987; 1081; 1085; 1093; 1098
AEROHALOR (powder inhaler), 1487
AERONAUTICS: See Aviation
AEROSOLS: See also Inhalation
therapy, congress on, Italy, 311
AEROSPORIN
treatment, oral, of Shigellosis vs. chloramphenicol [Ross & others] *1459
AFTERBIRTH: See Placenta
AGE
Adolescent: See Adolescence
blood pressure in relation to, [Master & others] *1465
Mother's: See Maternity; Pregnancy
Old Age: See Old Age
susceptibility to inoculation of tumors and leukemia, 816—E
AGGLUTININS
agglutination test for brucellosis in multiple sclerosis, [Spicknall & others] *1470; [Eisele & others] *1473
hemagglutination inhibition test in virus and Rickettsial diseases, [Milzer] *220
Rh: See Rh Factor
serum test for active tuberculosis, 1489—E
sludged blood, [Beilis] 1449—ab

AGRANULOCYTOSIS
etiology: butane gas relatitvely harmless, 942
etiology tripelennamine (pyribenzamine), [Hilker] *741; [Martland & Guck] *742
fatal, after use of presidon, [Covner] 397—ab
AGRICULTURE: See also Rural Communities
chemicals, new hazards from aerial dusting and spraying, 1158—E
AIR: See also Oxygen
adrenals visualized by filling stomach with, [Kraus] 132—C
aspiration of from right ventricle of heart, [Stallworth & others] *1250
Dust in, as Industrial Hazard: See Pneumonoconiosis
Embolism: See Embolism
Injection of: See Pneumothorax, Artificial
pollution mobile unit, Pa., 381
pollution, physiologic aspects, [McCord] 1021—ab
pollution, prevention, costs millions, 188
Presence of, in Cavity: See Pneumopericardium; Pneumoperitoneum; Pneumothorax
pressure, fatalities in decompression chambers, [Haymaker] 597—ab
AIRCO Oxygen Therapy Regulator, 440
AIR FORCE: See Aviation, U. S. Air Force
AIR PASSAGES: See Respiratory System
AIRPLANES: See Aviation
ALABASTER
workers, respiratory tracts of, Volterra, [Manfredi] 851—ab
ALASKA
field station of U.S.P.H.S.: Arctic Health Research Center, 822
ALBUMINURIA
long-continued, 1458
ALCOHOL
Addicts: See Alcoholism
beer (average) and 3.2% beer compared; cause of arthritis? 214
beer, "cellulose dope" and paralysis, 513
colorimetric test, 1126
Committee on Problems of, National Research Council, 666
drinking increases hazard of carbon tetrachloride nephrosis, [Farrier & Smith] *965
drinking of small amounts and epilepsy, [Geddes] 1115—ab
drinking of small amounts, effect on driving, [Bjerver] 927—ab
germicide evaluated [Price] 921—ab
in parenteral nutrition, [Rice] 920—ab
reaction to small amount 1040
skin disinfection with, [Oatway] 761—C; [Price] 921—ab
studies, summer session on, Wis., 1007
tolerance in aviators, effect of altitude, Newman 141—ab
treatment of angina pectoris with whisky, [Russek & others] *355; [Edwards] 1514—C
Wood: See Methyl Alcohol
ALCOHOLISM: See also Medicolegal Abstracts at end of letter M
A.M.A. Committee on Problems of, resolution on creating, 1085; 1098
clinical approach, [Osborn] *165
liver function in, [Voegtlin] 1367—ab
oxygen and intoxication, 609
paraldehyde contraindicated? 782
treatment, ACTH and A.C.E, 1160—E
treatment, animal charcoal as substitute for antabuse, [Moench] 683—ab
treatment, antabuse, [Chapuis] 144—ab
treatment, antabuse, contraindication to, [Norman] 1120—ab
treatment, thiopental (Pentothal) sodium, [Lemere] 1023—ab
ALIENS: See Physicians, foreign
ALIMENTARY TRACT: See Digestive System
ALKALOSIS
fluid therapy, [Darrow & Pratt] *365
ALLEN INSTRUCTORSHIP AWARDS: See Prizes
ALLEN'S Method: See Anesthesia, refrigeration
ALLERGY: See also Asthma; Dermatitis; Hay Fever; Urticaria
autosensitization dermatitis, 1380
bacterial-allergic asthma in children, [Flensborg] 1375—ab
colds as premenstrual symptoms, 1221
deafness due to [Jordan] 924—ab
desensitization in allergic conditions, 511
gasoline fumes and allergy, 694
Journal of Allergy new editor: Dr. Alexander, 1506
mixing antigens for hypodermic injection, 610
pathergic illness, 1015; 1196
reaction after pertussis vaccine, 941
reaction, effect of ACTH and cortisone on, [Selye] 318—ab
reaction to sulfobromophthalein sodium, [Roth] *802
sensitivity to aureomycin; [Parets] *653
sensitivity to barbital, [Welton] *232
sensitivity to penicillin, [Felder & Felder] *361
sensitivity to penicillin, causing intestinal hemorrhage and necrosis, 1222
sensitivity to penicillin G, [Volini & others] *794
ALLERGY—Continued
sensitivity to rosin in violinist, 1222
sensitivity to surgeon's rubber gloves, 1296
sensitivity to vitamin B_{12} concentrate, [Young & others] *893
shock from wasp sting, 1038; [Paul] 1451—ab
sulfonamide hypersensitivity, [Suchett-Kaye] 1288—ab
treatment, histamine in multiple sclerosis, [Jonez] 767—ab
ALLOXAN
diabetic rabbit and dietary hypercholesteremia: atherosclerosis, [Adams] 198—C
sulfhydryl compounds and experimental diabetes, 1416—E
ALOPECIA
etiology: propylthiouracil, 860
ALPHA Gamma Delta Fellowship: See Fellowships
ALTITUDE
blood pressure at different altitudes, 149
effect on alcohol tolerance, [Newman] 141—ab
High: See also Aviation
high simulated, in decompression chambers, fatalities, [Haymaker] 597—ab
ALUM
cysts after triple immunizations, 1380
ALUMINUM
hydroxide gel, N.N.R., (Veltex) 241
salts reduces fluorosis, [Venkataramanan] 849—ab
solubility, [Jephcott] 838—ab
ALVARENGA Prize: See Prizes
AMAUROSIS: See Idiocy, amaurotic
AMBULANCE
planes, county societies advised to obtain CAA list, 1419
AMBULATION: See Convalescence
AMEBIASIS: See also Colitis, amebic
in civilian hospital and in veterans, [Mackie] 1284—ab
in veterans, [Conn] 1028—ab
International Congress of, Sept. 15-16, 1950, 1111
treatment, aureomycin, [Bordes] 1215—ab; [McVay] 1284—ab
treatment, bacitracin, [Most & others] *792
treatment, iodochlorohydroxyquinoline (Vioform) 781
AMENORRHEA
after tonsillectomy, 513
treatment, 938
AMERICA
Road Ahead: America's Creeping Revolution, [Flynn] 392—ab
AMERICAN: See also America; National; Pan American; United States; list of societies at end of letter S
Academy of Pediatrics Committee for Improvement of Child Health, [London & Davison] *1232
Association of Blood Banks, (urge standardized methods for blood collection) 1417—E
Association of University Women Award: See Prizes
Board of Anesthesiology (announcements), 1007
Board of Human Nutrition proposed, 754
Board of Obstetrics and Gynecology, (correction) 825; (annual meeting) 907; (A.M.A. resolution on residency training) 1079; 1092
Boards, (U.S.P.H.S. medical officers certified by) 122; 379; (Navy medical officers certified by) 661; (A.M.A. resolution on diplomates only being on hospital staff) 1092; 1093; (Army medical officers certified by) 1349
College of Physicians, (research fellowships) 1007
College of Surgeons, (establish single inspection service for residencies in surgery) 1184
Congress of Obstetrics and Gynecology, (Argentine delegates) 389
Council of Voluntary Agencies for Foreign Service, Inc., (distribute medical journals for foreign relief) 382; 1353
Council on Rheumatic Fever, 1507
Diabetes Association, new headquarters, 754; (statement regarding diet therapy) 1200
Embassy in London, Dr. A. S. Osborne assigned as science attache, 481
Foundation: See Foundations
Health Resort: See Health resorts
Heart Association: See Fellowships; Prizes
Hospital Association, (standardized methods for collecting blood) 1417—E
Hospital of Paris, (Dr. Delatour to direct) 1107
Indians: See Indians, American
MEDICAL DIRECTORY: 1950, 243—E; 479
Medical Golfing Association, (tournament at San Francisco Session) 256
Medicine: See Medicine
Museum of Health, New York City, 664
Nurses Association, (A.M.A. resolution on including nursing service in prepayment plans) 986
Public Health Association, (analysis of statement on medical care), 986; 1262—E; [Dickinson] *1274
AMERICAN—Continued
Red Cross: See Red Cross
Q Fever: See Q Fever
way of living, 118—E
Youth for Democracy (AYD) and Association of Interns and Medical Students, 993
AMERICAN MEDICAL ASSOCIATION
AMERICAN MEDICAL DIRECTORY: 1950, 243—E; 479
Annual Session: See also subhead: San Francisco Session
Annual Session: 1951 (Atlantic City); 1952 (Chicago); 1953 (New York), 1164; 1166
Auditor's Report, 984; 1088
Bauer (L. H.) presents arguments against Reorganization Plan No. 27, 819
blood collection, urge standardized methods for, 1417—E
Board of Trustees, (portraits) 699; (abstract of minutes of meeting, May 28, 1950) 749; (attitude on social security extension bill) 819; (Dr. Bauer's remarks on Reorganization Plan 27) 819; (report) 979; (Reference Committee report) 1087; (addenda to report) 984; (supplementary report) 1073; 1088; (Reference Committee report) 1087; 1088; (announce renewal of contract with Whitaker and Baxter) 1093; (Dr. Murdock and Dr. Larson elected) 1163; 1164; (reorganization) 1184; (abstract of minutes of meetings, June 26-30) 1184; (report to, on medical care in England under National Health Service) [Martin & others] *1420; (registration of physicians for military service) 1416—E; (report to on British medical education and National Health Service) [Diehl & others] *1492
Boone (Joel T.), address, 1161
Borzell (F. F.); (portrait) 701; (address) 975; (Reference Committee report) 1087; 1163
British Medical Association plan for exchange of physicians between Great Britain and United States approved, 1184; (representative at A.M.A. session: Dr. Wiles) 987
Bureau of Health Education, (new series of electrical transcriptions: "Tea for Three") 660; (recommends establishing Councils for Child Study) 1184
Bureau of Investigation, ("Magic Spike," virilium tube of Erickson and Nelson) 571
Bureau of Legal Medicine and Legislation: See Laws and Legislation, state, weekly summary; Medicolegal Abstracts at end of letter M
Bureau of Medical Economic Research, (survey of college health services) 477—E; (medical economic reviews and abstracts) 392; 763; 833; (Bulletin 75: survey of blood banks) 1072; 1078; 1077; (medical care prices vs. cost of living) 1160—E; [Dickinson] *1198; (analysis of statement of American Public Health Ass'n. on medical care) 1262—E; [Dickinson] *1274
Bustamante (Jose Angel) presented at A.M.A. session, 1166
By-Laws: See subhead: Constitution and By-Laws
Cleveland Clinical Session (1950) 1184
Cline (J. W.) (biographic sketch; portrait) 900—E; (election; address) 1161; 1162
clinical conferences on diabetes, 273
Clinical Session: 1949 (Washington) 975; 1950 (Cleveland) 1184; 1951 (Houston) 120; 749
Commission on Chronic Illness, 983
Committee: See also subhead: Local Committee; Reference Committee
Committee on Awards, (report) 1168
Committee on Blood Banks, 1072—E; (report) 1077; (special blood bank questionnaire) 1160—E
Committee on Chronic Diseases, (report) 1075
Committee on Displaced Physicians, (report) 980; 1088
Committee on Distinguished Service Award, (appoint members) 1164
Committee on General Practice, (report) 981; 1092
Committee on Hospitals and Practice of Medicine (Hess report), 988; 1073; 1075; 1082; 1083; 1088; 1090; 1091
Committee on Legislation, 983; 1097; (new name of Coordination Committee on Legislation) 1184
Committee on Medicolegal Problems (new), 749
Committee on Problems of Alcoholism, A.M.A. resolution on creating, 1085; 1098
Committee on Research created, 1184
Committee on Rural Health, (field secretary employed) 749
Committee on Training of Interns, (report) 1097
Committee on Veterans Affairs, 120; (report) 1099
Community Blood Bank Exhibit, 272
Constitution and By-Laws amendments, (A.M.A. Reference Committee on) 1094; 1102; (Interim Committee on) 1164
Cooperation: See subhead: Representatives
Coordinating Committee, (progress report) 987; 1095; (restoration to original membership of 10) 1184
Coordination Committee on Legislation, 983; 1097; (name changed) 1184

AMERICAN MEDICAL ASSOCIATION—Continued
Correlating Committee on Extension of Hospitals and Other Facilities, 988; 1101
Correlating Committee on Indigent Care, 988; 1101
Correlating Committee on Maternal and Child Care, 989; 1101
Correlating Committee on Medical Care for Industrial Workers, 989; 1101
Correlating Committee on Medical Care of Veterans, 989; 1101
Correlating Committee on Prepayment Hospital and Medical Service, (activities) 989; 991; 1101; (liaison with Blue Shield Commission) 1184
Correlating Committee on Relations with Lay Sponsored Voluntary Health Plans, 989; 991; 1101; **(list of Twenty Principles) 140: 686; 799, July 2, 1949; 141: 1173; 1306, Dec. 17, 31, 1949**
Council on Federal Medical Services, A.M.A. resolution on, 1084; 1098
Council on Foods and Nutrition, (carbonated beverage dispensing machines in school buildings) 24; (ascorbic acid content of grapefruit juice) 439
Council on Foods and Nutrition, HANDBOOK OF NUTRITION, [Jeans] *177; [Butt] *236; [Darrow & Pratt] *365; *432; [Maynard] *807; [Youmans] *1252; [Howe] *1337
Council on Medical Education and Hospitals, (hospital service in U. S.) *25; 117—E; (schools approved for medical technologists and record librarians) *102; 118—E; (licensure statistics for 1949) *441; 475—E; (continuation courses for physicians, July 1, 1950 to Jan. 15, 1951) *572; (commended by Committee on General Practice) 981; (report on Association of Internes and Medical Students) 992; 1092; (supplementary report: essentials of approved residencies and fellowship) 995; 1092; (additions to list of foreign medical schools) 1072—E; 1114; (resolution on unified inspection and evaluation of hospitals) 1081; 1092; (election of member: Dr. Haden) 1164; (associate secretary: Dr. Manlove) 1184; 1434; (new hospitals registered) 1199
Council on Medical Service, (report) 988; 990; 1101; (election of members) 1164; 1166
Council on National Emergency Medical Service, 982; 1097; 1158—E; (expresses A.M.A. appreciation of National Security Resources Board) 982; 1098; (sequel to film "They Also Serve") 1184; (conferences with military representatives) 1347
Council on Pharmacy and Chemistry (reports: warning on oxylin tablets) 241; (advertising antihistamines for colds) 744—E; (Dr. Grimson to succeed Dr. Thorn) 1184; (absorption and excretion of rutin and related flavonoid substances, [Clark & MacKay] *1411
Council on Physical Medicine and Rehabilitation, (basic requirements in school lighting) [Tinker] *362; (health resorts accepted by) 555; (minimum requirements for acceptable electrocardiographs) 654; (abstract of minutes of meeting, Dec. 2-3, 1949) 654; (expresses its appreciation to its consultants) 743
Council on Scientific Assembly, (election of member) 1164; (report on applications for Associate Fellowships) 1165
Councils, (resolution on multiplicity of meetings) 1077; 1099
Distinguished Service Award, (nominations open) 119—E; (awarded to Dr. Evarts Graham) 901—E; (balloting) 976; (appoint members to committee on) 1164
Dues: See subhead: Membership
Election of Officers, 1161
Exhibit on Fractures, 272
Exhibit Symposium on Tropical Medicine, 273
exhibits, (Scientific) 272; 1167; (awards) 1168; (Commercial) 291; (invitation to place exhibits at various meetings) 1184
Federal Security Agency, telegram regarding, 1163
Fellowships, (application for Associate Fellowships) 1165; (election of Affiliate Fellows) 1166
financial statement, 979; 984; 1088
Henderson (E. L.), (portrait) 698; (inauguration broadcast) 746—E; (address) *783
hospitals registered by (list of) *38; (essentials of those approved for residencies and fellowships) 995; 1092
House of Delegates, (official call; list of members) 242—E; 245; (portrait of Speaker, Dr. Borzell) 701; **(minutes) 975; 1073; 1161**; (address of Speaker: Dr. Borzell) 975; (members who died since last annual session) 975; (Dr. William Bates appointed vice speaker, pro tem) 975; (resolution on newly elected members) 1083; 1094; (Reference Committee report) 1087; (resolution on appropriation for expenses of section delegates) 1093; (re-election of speaker, Dr. Borzell; address) 1163; (election of vice speaker; Dr. Reuling) 1163
Houston Clinical Session (1951) 120; 749
Inter-Association Committee on Health, approve statements from, 1184
Interim Committee on Amendments to Constitution and By-Laws, (appointment) 1164
Irons (E. E.), address, 977; (Reference Committee report) 1087
JOURNAL, ("Washington News" to replace "Washington Letter") 183—E; (include subscription price in membership dues) 1084; 1094; 1100; 1102
journals (special), (microfilming of *Archives of Internal Medicine*) 749; (include subscription price in membership dues) 1100; 1102; (propose change of name of *Archives of Dermatology and Syphilology*) 1170; (change in format of cover) 1184
Judicial Council, (duties) 1088; 1089; (elect Dr. Buie and Dr. Lukins to) 1164
Junior A.M.A.: See subhead: Student A.M.A.
Larson (L. W.), address, 1164
Local Committee on Arrangements, 250
medical examiner's system, brochure on, 749
medical schools (foreign) approved by, (list of) *463; 1072—E; 1114
membership dues, (Oklahoma acts on procedure) 125; (Board decisions on) 979; 1094; (resolution on collecting) 1080; 1094; 1099; (reimburse state societies for collecting) 1184; (dues to include subscription to THE JOURNAL or *Archives*) 1084; 1094; 1100; 1102
membership (restrictive), resolution on, 1086; 1098
membership (single classification), resolution on, 660; 1080; 1081; 1094; 1102
Motion Picture Film Library, List of Pictures Reviewed: See Moving Pictures, Medical
motion pictures, (at San Francisco Session) 288; (revised edition of Motion Pictures Reviews available) 378; (documentary film: M.D.—the U. S. Doctor) 746—E
Murdock (T. P.), address, 1164
National Education Program to promote voluntary health insurance plans and to prevent state medicine, 744—E; 987; (resolution on continuing and expanding) 1081; 1085; 1098; (Board of Trustees renews contract with Whitaker and Baxter) 1093
Nogueira (Pedro) presented, 1166
Officers, (list of, 1949-1950) 246; (election) 1161
President Henderson, (portrait) 698; (inauguration broadcast) 746—E; (address) *783
President Irons address, 977; (Reference Committee report), 1087
president, oath of office of, 900—E
President-Elect Cline, 900—E; (election) 1161; (address) 1162
Proceedings of San Francisco Session, 975; 1073; 1161
Program of Scientific Assembly, San Francisco Session, 257
Public Relations Conference, NOV. 26-27, 1950, 749
QUESTIONS AND ANSWERS, 244—E; 479
Reference Committee on Amendments to A.M.A. Constitution and By-Laws, (report) 1094; 1102
Reference Committee on Emergency Medical Service, (report) 1097; 1102
Reference Committee on Hygiene and Public Health, (report) 1095
Reference Committee on Industrial Health, (report) 1095
Reference Committee on Insurance and Medical Service, (report) 1101
Reference Committee on Medical Education, (report) 1092
Reference Committee on Miscellaneous Business, (report) 1098
Reference Committee on Reports of Board of Trustees and Secretary, (report) 1087; 1095
Reference Committee on Reports of Officers, (report) 1087
Reference Committee on Rules and Order of Business, (report) 987; 1095
Reference Committee on Sections and Section Work, (report) 1093
Reference Committees, (membership) 976
Regional Conferences on Voluntary Health Insurance, 120; 989; 990
Reorganization Plan No. 27: See subhead: U.S. Department of Health, Education and Security
representatives appointed to various committees, 749; 1184
resolution from Section on Diseases of Chest on tuberculosis in Indians, 1161
resolution of congratulation to California and also to San Francisco, 1166
resolution of sympathy to Dr. and Mrs. James E. Paullin, 1076
resolution on appointing medical advisory committee to National Security Council, 982; 1098
resolution on appointing only specialty board diplomates to hospital staff, 1092; 1093
resolution on appropriation for expenses of Section delegates, 1093
resolution on collection of dues, 1080; 1094; 1099
resolution on costs of medical care, 1084; 1098
resolution on continuing and expanding National Education Program, 1081; 1093; 1098
resolution on Council on Federal Medical Services being created, 1084; 1098
resolution on disseminating information to prevent blindness, 1082; 1099
resolution on early detection of diabetes, 1084; 1095
resolution on effective civil defense program, 982; 1098
resolution on endorsing World Medical Association, 1082; 1092
resolution on enforcing Principles of Medical Ethics, 660
resolution on establishing Committee on Problems of Alcoholism, 1085; 1098
resolution on evaluating health insurance policies, 1077; 1101
resolution on exfoliative cytologic diagnostic procedure, 1086; 1095
resolution on expenditure for advertising, 1085
resolution on exploitation of services of physicians for financial profit, 1077; 1095
resolution on free choice of physicians for federal employees, 983; 1088
resolution on graduate training, 1080; 1093
resolution on hospital staff meetings, 1081; 1092
resolution on including nursing services in prepayment plans, 986
resolution on income tax exemption, 1084; 1095
resolution on increase training programs in general practice, 1173
resolution on manual on establishing and operating department of general practice in hospitals 1077; 1092
resolution on medical care of civilian employees of Armed Forces, 1084; 1098
resolution on medical care of veterans, 1076; 1084; 1088; 1099; 1100; 1101
resolution on medical personnel of Armed Forces, 1102; (Reference Committee report) 1102
resolution on medical relations in Workmen's Compensation, 1080; 1095
resolution on membership dues to include subscription to THE JOURNAL or *Archives*, 1084; 1094; 1100; 1102
resolution on multiplicity of meetings of Councils, 1077; 1099
resolution on newly elected House of Delegates members, 1083; 1094
resolution on opposition to bills favoring federal grants-in-aid, 1083; 1096
resolution on pilot survey of practitioners of so-called healing arts, 1079; 1098
resolution on practice of medicine by hospitals, 1073; 1080
resolution on "purveyal of medical service" (Hess report) 1083; 1088
resolution on recognizing anesthesiology, pathology, physical medicine and roentgenology as practice of medicine, 1080; 1089
resolution on Reorganization Plan No. 27, 986; 1094
resolution on residency training in obstetrics and gynecology, 1079; 1092
resolution on Section on Dermatology and Syphilology space at Scientific Exhibit, 1171
resolution on Section on Medicine in Industry being created, 1093; 1094
resolution on Section on Military Medicine and Surgery being established, 1084; 1094
resolution on Section on Preventive and Industrial Medicine and Public Health being changed to Section on Preventive Medicine and Public Health, 1079; 1094
resolution on single membership classification, 660; 1080; 1081; 1094; 1102
resolution on specialty boards requiring 2 years in general practice, 1083
resolution on state board examinations in pediatrics, 1086; 1093
resolution on Twelve Point Program, 1085; 1097; 1101
resolution on unified inspection and evaluation of hospitals, 1081; 1092
resolution on voting by ballot, 1079; 1087
Robins (R. B.) address, 1163
Routley (T. C.), message from, 1087
San Francisco Session, June 26-30, 1950, 242—E; **(program)** 245; 898—E; (convention trip to Philippines and to Japan) [Sams] 302; (International Travel Service tour) 479; **(proceedings)** 975; 1073; 1161; (registration) 1001
schools for medical technologists and record librarians approved by, *109; 118—E
Scientific Exhibit, San Francisco Session, 272; (report) 1167; (awards) 1168
Secretary, election of Dr. Lull, 1162
Section on Anesthesiology, (program) 259; (exhibit) 285; (minutes) 1169

AMERICAN MEDICAL ASSOCIATION—Continued
Section on Dermatology and Syphilology, (program) 260; (exhibit) 281; (minutes) 1169; (resolution on space allotted at Scientific Exhibit) 1171
Section on Diseases of Chest, (program) 261; (exhibit) 286; (resolution on tuberculosis among Indians) 1161; (minutes) 1171
Section on Experimental Medicine and Therapeutics, (program) 261; (exhibit) 279; (minutes) 1171
Section on Gastro-Enterology and Proctology, (program) 262; (minutes) 1172
Section on General Practice, (program) 262; (exhibit) 286; (minutes) 1172
Section on Internal Medicine, (program) 263; (exhibit) 274; (minutes) 1174
Section on Laryngology, Otology and Rhinology, (program) 264; (exhibit) 278; (minutes) 1174
Section on Medicine in Industry, resolution requesting, 1093; 1094
Section on Military Medicine and Surgery, resolution requesting, 1084; 1094
Section on Miscellaneous Topics, (program) 265; (minutes) 1174
Section on Nervous and Mental Diseases, (program) 265; (exhibit) 280; (chairman's address) [Gerty] *613; (minutes) 1175; (vote on change of name) 1176
Section on Obstetrics and Gynecology, (program) 266; (exhibit) 277; (minutes) 1176
Section on Ophthalmology, (program) 266; (exhibit) 278; (minutes) 1177
Section on Orthopedic Surgery, (program) 267; (exhibit) 283; (minutes) 1178
Section on Pathology and Physiology, (program) 268; (exhibit) 279; (minutes) 1179
Section on Pediatrics, (program) 268; (exhibit) 278; (minutes) 1179
Section on Physical Medicine and Rehabilitation, (program) 269; (exhibit) 287; (minutes) 1180
Section on Preventive and Industrial Medicine and Public Health, (program) 269; (exhibit) 282; (resolution on changing name) 1079; 1094; (minutes) 1181
Section on Radiology, (program) 270; (exhibit) 284; (minutes) 1181
Section on Surgery, General and Abdominal, (program) 271; (exhibit) 276; (minutes) 1182
Section on Urology, (program) 271; (exhibit) 282; (minutes) 1183
Sections, (programs) 259; (exhibits) 274; (portraits of officers) 701; (resolution on appropriation for expenses of delegates) 1093; (minutes) 1169
Sessions on Military Medicine and Surgery, (program) 265; (minutes) 1175
Student A.M.A., 982, 1088
survey of physicians' incomes, 983; 1088
surveys of medical education and medical practice in Great Britain, 983; 987; (Martin & others] *1420; [Diehl & others] *1492
Taft and Hill bills, hearings, 982; 1088
Technical Exposition, 291
television at San Francisco session, 378—OS
Treasurer, (report) 984; 1088; (election) 1163
Trustees: See subhead: Board of Trustees
12 point program, 480; (resolution on) 1085; 1097; 1101
20 principles for lay sponsored voluntary health plans, 140: 686; 799, July 2, 1949; **141**: 1173; 1306; Dec. 17, 1949; **143**: 989; 991, July 15, 1950
U. S. Department of Health, Education and Security, (with cabinet rank opposed by) 560; 819; 986; 1094
Vice President, election of Dr. Robins, 1161; (address) 1163
Washington Clinical Session, (proceedings adopted) 975
Washington office expansion, 983; 1088; 1097
Whitaker and Baxter: See subhead: National Education Program
Woman's Auxiliary: See Woman's Auxiliary
AMIGEN, to correct protein deficiencies in surgical patients, [Allen] 593—ab
AMINO ACIDS: See also Amigen; Parenamine
composition of certain animal and vegetable proteins, [Howe] *1338
parenteral nutrition [Rice] 920—ab
peptide linkage of proteins to, 1071—E
sparing action of fats, 1160—E
supplement in feeding of premature infants, [Henckel] 604—ab
AMINONAT powder, N.N.R. (National Drug), 241
AMINOPHYLLINE
administration; methods; theophylline levels in blood, [Waxler & Schack] *736
solution, N.N.R., (Sherman Laboratories) 815
AMINOPTERIN
treatment of leukemia, [Sacks] 496—ab; [Heinle] 599—ab
treatment of leukemia, effect on skeletal lesions, [Silverman] 1523—ab
p-AMINOSALICYLIC ACID: See Acid
AMMONIUM COMPOUNDS
quaternary, banthine in peptic ulcer, [Grimson & others) *873
quaternary, banthine in hyperhidrosis, [Grimson & others] *1331
Tetraethyl: See Tetraethylammonium
AMNESTROGEN, N.N.R., (Squibb), 1486
AMNIOTIC FLUID
maternal pulmonary embolism caused by, [Schenken] 836—ab
AMPROTROPINE
phosphate, effect on motor activity of small intestine, [Chapman & others] *629
AMPULLA OF VATER
premalignant lesions, [Cattell] 502—ab
AMPUTATION: See also Limbs, Artificial
phantom limb pain, excise posterior central cerebral convolution, [Stone] 1449—ab
phantom limb pain, late results of sympathectomy for, [Kallio] 1213—ab
physiologic, by tourniquet and refrigeration, [Large] 1117—ab
ANALGESIA: See Anesthesia; Pain, relief of
ANAPHYLAXIS: See Allergy
ANASTOMOSIS: See Arteries; Intestines
ANATHION
treatment of arthritis, [Libenson] 1028—ab
ANATOMY: See Dissection
Morbid: See Pathology
ANATUBERCULIN: See Tuberculin
ANDAY, KADRI RASHID death, 670
ANDROGENS
methyltestosterone in refractory functional dysmenorrhea, [Filler] *1235
methyl testosterone in rheumatoid arthritis, [Kersley] 1372—ab
methyltestosterone, N.N.R., (Smith-Dorsey), 1486
testosterone propionate, danger from frequent injection? 1534
testosterone propionate, N.N.R., (Bio-Intrasol; Blue Line Physicians Drug) 1259
testosterone subcutaneously; use 20 gage needle for, after removing breast cancer, 1534
testosterone, sublingually, [Escamilla] 1025—ab
testosterone treatment of breast cancer, [Preston] 139—ab; 694
testosterone treatment of cataract, [Keyton] 592—ab
testosterone treatment of rheumatoid arthritis, [Guest & others] *338
ANEMIA: See also Anemia, Pernicious
aplastic, massive sternosternal transfusion in, [Danopoulos] 322—ab
etiology; antihistaminic drugs, [Crumbley] *726
etiology; mephenesin (Tolserol), [Kositchek & Barnet] *22
hemolytic, congenital, 326
hypochromic, iron intravenously in, [Gerbrandy] 505—ab
in rural population, [Youmans] 394—ab
iron deficiency, [Youmans] *1252
megaloblastic, vitamin B_{12} in, [Woodruff] 141—ab
severe, secondary to diaphragmatic hernia, [Schwartz] 1280—ab
sickle cell disease in Africa and America, [Raper] 1371—ab
sickle cell, neonatal, [Frazier & Rice] *1065
splenic, Gaucher's disease, [Saldun de Rodriguez] 1373—ab
ANEMIA, PERNICIOUS
cancer of stomach after, 1512
treatment, folic acid, [Jequier] 1215—ab
treatment, vitamin B_{12}, [Mueller] 845—ab; [Kinnear] 1288—ab
ANENCEPHALY, recurrent, [Feuerlicht] *23
ANESTHESIA
acetomeroctol, Merbak, N.N.R., (description) 814; (Schieffelin) 814
Cold: See Anesthesia, refrigeration
for endoscopic removal of foreign bodies, 780
hypodermic syringe for inducing, in blood bank work [Wolf & others] *431
in labor, discussed at Congress, Italy, 387
Italian Society of Anesthesiology, 830
local infiltration, of muscle in scalenus anticus syndrome, [Häberlin] 1374—ab
local, presence of acid inhibits, 1221
narcoanalysis, Italy, 912
occlusion of central retinal artery after [Givner] 768—ab
refrigeration, physiologic amputation by, [Large] 1117—ab
refrigeration surface, for cutting split skin grafts, [Gibson] 1524—ab
spinal, after-effects, Denmark, 130
spinal, continous, for treating eclampsia, [McElrath] 200—ab
spinal, headache after; DHE-45 for, [Caldwell] 684—ab
spinal, presacral procaine, for sciatica, [Stender] 1454—ab
spinal, resuscitation after apparent death from, [Hyde & Moore] *805; (correction) 1268
spinal, sequels, [Everberg] 851—ab
ANESTHESIOLOGY
recognition as practice of medicine, A.M.A. resolution on, 1080; 1089
ANESTHETIST
international training center for, 383
ANEURYSM
dissecting, of aorta, [Brodsky] 851—ab
of abdominal aorta with perforation into vena cava, [Dussaillant] 322—ab
pulmonary, rupture in 67 year old woman, [Lindert & Correll] *888
ANGINA
Agranulocytic: See Agranulocytosis
Monocytic: See Mononucleosis, Infectious
ANGINA PECTORIS
diagnosis, anoxemia tests vs. Master two-step exercise electrocardiogram, 1261—E
diaphragmatic flutter, [Senter & others] *174
during decubitus (patient in recumbent position), [Soloff] *225; [Brunn] 1513-C
treatment, alcohol (whisky), [Russek & others] *355; [Edwards] 1514—C
treatment, resect preaortic plexus, [Arnulf] 1454—ab
treatment, tetraethylammonium chloride, [Atkinson] 1019—ab
treatment, Visammin (khellin), [Rosenman & others] *160; [Dewar] 773—ab
ANGIOCARDIOGRAPHY: See Heart, roentgen study
ANGIOKERATOMA
moles on scrotum, 939
ANGIOSPASM, Peripheral: See Raynaud's Disease
ANIMAL EXPERIMENTATION
"Am I an Enemy of Animals?" by A. H. MacCarthy, 1346—E
animals for medical research in Buffalo, 905
antivivisectionists buy radio time on buses, Columbia, 1004
ANIMALS: See also under specific animals as Cats; Guinea Pigs
charcoal from, as substitute for antabuse, [Moench] 683—ab
Experimentation on: See Animal Experimentation
foods of animal origin, [Howe] *1337
serum neutralizing virus of toxoplasmosis, preparation, 1272
ANOMALIES: See Abnormalities
ANOXEMIA: See Blood, oxygen
ANOXIA: See Oxygen deficiency
ANSADOL, N.N.R., (description) 1485; (Rorer) 1485
ANTABUSE
animal charcoal as substitute for, [Moench] 683—ab
contraindication to, [Norman] 1120—ab
Treatment: See Alcoholism
ANTHRASILICOSIS: See Pneumonoconiosis
ANTIBIOTICS: See also Bacitracin; Chloramphenicol; Penicillin; Streptomycin
histolytic, 477—E
in the front line, Documentation of Military Medicine discuss, 1014
incompatible, 816—E
Italian Congress on, 1443
new: diplomycin, [Viking] 400—ab
new: terramycin, [King & others] *1; [Hendricks & others] *4; [Melcher & others] *1303
spectrum of gonococcus, [Gocke] 1364—ab
treatment, decreases pneumonia mortality, Sweden, 488
ANTIBODIES: See also Agglutinins; Antigens; Immunity
inherited, and immunization of infants, [Greenberg] 681—ab
Rh: See Rh Factor
ANTICOAGULANTS: See Blood coagulation; Dicumarol; Heparin
ANTIGENS: See also Antibodies; Immunity
mixing, for hypodermic injection, 610
Rh: See Rh Factor
ANTI-HEMOPHILUS Influenzae Serum: See Influenza
ANTIHISTAMINE: See Histamine
ANTI-LEWISITE, British: See BAL
ANTISEPTICS: See also Disinfection
germicidal efficiency, Brazil, 489
ANTITOXIN: See Tetanus
ANTIVIVISECTION: See Animal Experimentation
ANTRUM of Highmore: See Maxillary Sinus
ANURIA: See Urine suppression
ANUS: See Hemorrhoids; Rectum
Artificial: See Colostomy
Fistula: See Fistula
Pruritus: See Pruritus
ANXIETY
hyperactive reflexes caused by? 1380
AORTA
abdominal aortography, [Lindström] 505—ab
coarctation, Italy, 1012
coarctation, retrograde arteriography in, [Freeman] 1517—ab
roentgen study, retrograde or counter-current, [Castellanos] 1277—ab
surgery of pulmonary stenosis, [Holman] 140—ab
AORTIC ARCH
double, [Griswold] 141—ab
APOPLEXY: See Brain hemorrhage
APPARATUS: See also Hearing Aids; Heart, electrocardiograph; Instruments (cross reference)
table for angiocardiography, [Axén & Lind] *540

APPENDICITIS
mortality; factors contributing to decrease, [Slattery] 317—ab
APPETITE
olfactory acuity, [Janowitz & Grossman] 391—C
APPLES
Clapp's Junior Foods, 1415
APRICOTS
Clapp's Junior Foods, 1415
Diet-Delight Brand Halves Unpeeled, 439
ARACHNOIDITIS
chronic, 327
chronic leptomeningitis, [Fox] 1122—ab
ARCHIVES Published by the A.M.A.: See American Medical Association journals (special)
ARCHIVOS: See Journals
ARCTIC
Health Research Center, 822
hygiene problems in, [Young] 1204—ab
ARGENTINA
delegates to American Congress of Obstetrics and Gynecology, 389
ARMED FORCES: See also Army; Aviation, U.S. Air Force; Korean War; Navy; World War II
civilian employees, A.M.A. resolution on medical care of, 1084; 1098
draft extension, 185
Insufflator, 1069
medical personnel, A.M.A. resolution on 1102; (Reference Committee report) 1102
medical reserves; 377; 562; 1185
medical situation, 1103
physicians for, 1070—E; 1185; (registration) 1416—E; 1418
physicians (women) in, 1263
Red Cross blood collections, 1264
reserve officers, no immediate plans to call, 902
ARMOUR
Laboratories policy of ACTH distribution, [Mote] 831—C
Research Foundation, symposium on thin films sponsored by, 484
ARMS: See also Extremities; Hand; Radius; Wrist
arterial disorders in, treatment by sympathectomy, (film review) 1274
Artificial: See Limbs, artificial
blanching on elevation, 1298
pain from mechanisms in costoclavicular space, [Stammers] 1289—ab
pain in coronary disease, [Robecchi] 1526—ab
ARMY
Norwegian, venereal disease in troops in Germany, 195
ARMY, UNITED STATES: See also Armed Forces; World War II
consultants go to Europe, 750
consultants to Far East, 1349
Hepatic and Metabolic Center, 750
Hospitals: See Hospitals, Army
Medical Center, course on nuclear energy, 481
medical corps, training and career management, [Wergeland] °1133
Medical Department consultants to visit European Command, 481; 750
Medical Department, current status report, [Armstrong] °18
Medical Department 175th year: July 27, 1502
medical interns in service, 1502
medical officers certified by American Boards, 1349
medical recruits, 1263
medical reserve officers being called, 1185; 1418; 1490
medical societies cooperation with, 1490
monthly medical meeting, 481
officers, initial call for, 1490
one year volunteers, 1490
psychology consultants, 481
rations tested during Kon-Tiki expedition, 1195
research laboratory, select site for, 750
Seeley (Sam F.) now brigadier general, 1349
ARNETT, T. M., V. A. appointment, 188
ARRHYTHMIA: See also Auricular Fibrillation; Auricular Flutter; Ventricular Fibrillation
cardiac, quinidine in blood, [Sokolow] 1204—ab
paroxysmal, quinacrine for, [Vega Diaz] 1453—ab
ARSPHENAMINE
toxicity; jaundice, [Gennerich] 686—ab
Treatment: See Neurosyphilis
ART: See also Physicians, avocations
Association of Medical Illustrators, directory, 382
ARTANE: See Trihexyphenidyl
ARTERENOL
induced hypertension; benzodioxan test for pheochromocytoma, [Goldenberg & Aranow] °1140
ARTERIES: See also Aorta; Arteriosclerosis; Blood Vessels; Ductus Arteriosus; Veins
Aneurysm: See Aneurysm
blood vessel bank, New York, 664
carotid cerebral arteriography, [Rogé] 687—ab
carotid, manipulation in first aid for cranial trauma, [Kranenburg] 603—ab
Coronary: See also Angina Pectoris; Arteriosclerosis
ARTERIES—Continued
coronary cripple, surgical rehabilitation, [Thompson] 135—ab
coronary disease, periarthritis of shoulder, [Robecchi] 1526—ab
coronary heart disease, shoulder-hand syndrome in, [Carroll] 1024—ab
coronary infarct and diabetes, 612
coronary insufficiency, anoxemia test vs. Master two-step exercise, 1261—E
coronary insufficiency, Master two-step test, [Master] 1517—ab
Coronary Occlusion: See also Thrombosis, coronary
coronary occlusion (acute), anticoagulants in, [Mullins] 1029—ab
coronary occlusion (acute), femoral embolectomy 17 days after, [Nutter] 1369—ab
coronary occlusion, differentiated from pericarditis, [Evans] °954
coronary occlusion with chronic rheumatic heart disease, [Gardner] 135—ab
coronary, third: conus artery, [Schlesinger] 315—ab
coronary vasodynamics, effect of preaortic plexus, [Arnulf] 1526—ab
disorders in upper extremity, treatment by sympathectomy (film review), 1274
Embolism: See Embolism
hepatic, ligation, 695
Inflammation: See Periarteritis
livedo reticularis (cutis marmorata), 695
Pressure in: See Blood Pressure
pulmonary hypertension in heart disease, [Borden] 1282—ab
pulmonary, surgery of pulmonary stenosis, [Holman] 140—ab
Pulmonary, Valve of: See Pulmonary Valve
radial, catheterization through, Italy, 1012
retinal (central), occlusion after anesthesia, [Givner] 768—ab
Roentgen Study: See also Arteries, cerebral; Arteries, coronary
roentgen study, acute gangrene and death after arteriography, [Joyeux] 1291—ab
roentgen study, retrograde arteriography in coarctation of aorta, [Freeman] 1517—ab
surgery, revascularize extremity by arteriovenous anastomosis, [Leger] 687—ab
wall, hemorrhage into, [Wartman] 494—ab
ARTERIOGRAPHY: See Arteries, roentgen study
ARTERIOSCLEROSIS
atherosclerosis; dietary hypercholesteremia in alloxan diabetic rabbit, [Adams] 198—C
atherosclerosis; etiology; number and size of chylomicrons in plasma, 1344—E
atherosclerosis, relation to mural thrombosis in renal artery, [Heard] 1031—ab
atherosclerosis vs. hyperplastic arteriosclerosis, [Moschcowitz] °861
cerebral, with vertigo, effective treatment, 511
cholesterol metabolism and, [Katz] 1448—ab
coronary, choline as lipotropic agent, [Morrison] 683—ab
coronary, in young, [Saphir] 1116—ab
coronary, of birds, [Lindsay] 1116—ab
coronary, roentgen detection, [Habbe] 495—ab
hemorrhage into arterial wall, [Wartman] 494—ab
obliterans, [Regan] 398—ab
ARTERITIS: See also Periarteritis
of temporal artery, [Trías Pujol] 1032—ab
ARTHRITIS: See also Erythema, arthritic; Rheumatism
Arthritis and Rheumatism Foundation (fellowships for research in), 1007; (grants to hospitals, N.Y.C.) 1267
Atrophic or Chronic: See Arthritis, Rheumatoid
etiology: focal infection or beer? 214
etiology: penicillin or aureomycin, 1038
etiology; trauma, 942
periarthritis of shoulder in coronary disease, [Robecchi] 1526—ab
Treatment: See also Arthritis, Rheumatoid
treatment, ACTH in chronic inflammatory polyarthritis, [Mach] 604—ab; [Vermehren] 1375—ab
treatment, pregnenolone, [Davison] 767—ab; [Polley & Mason] °1477
treatment, sodium tetrathiodiglycollate (anathion), [Libenson] 1028—ab
tuberculous, calcium thionate in, [Santo Tomas Cobos] 1121—ab
ARTHRITIS, RHEUMATOID
extreme bone atrophy in child aged 8, 150
muscle lesions in, [Horwitz] 207—ab
treatment, deoxycortone and vitamin C, [Kersley; Currie] 1372—ab
treatment, deoxycortone plus ascorbic acid [Le Vay] 602—ab
treatment, deoxycortone with ascorbic acid vs. ACTH, [Spies] 208—ab
treatment, desoxycorticosterone acetate and ascorbic acid injections, [Kling] °791
treatment, desoxycorticosterone and methylene blue, [Hallberg] 930—ab
treatment, epinephrine, pregnenolone and testosterone, [Guest & others] °338
treatment, gold, [Freyberg] °418
treatment, gold, meningitis during; use of BAL, [Myerson] °1336
ARTHRITIS, RHEUMATOID—Continued
treatment, pituitary lobe implantation, [Fellinger] 688—ab; (in Sweden) 759; [Edström] 1033—ab
treatment, progesterone, [Kyle] 1518—ab
treatment, steroid hormone, [Kersley] 1372—ab
treatment, steroids and adrenal cortex extracts, [Polley & Mason] °1474
treatment, tetraethylammonium bromide, [Howell] 602—ab
ARTIFICIAL Insemination: See Impregnation, Artificial
Kidney: See Peritoneum, irrigation
Limbs: See Limbs, Artificial
Pneumothorax: See Pneumothorax
Teeth: See Teeth
ASCARIASIS
in children, hetrazan treatment, [Etteldorf & Crawford] °797
ASCITES
after ovarian cancer button operation for (reply), [Kornblum] 782
ASCORBIC ACID: See Acid
ASPHYXIA: See also Suffocation
alleged accidental, in babies, [Bowden] 1031—ab
Local: See Raynaud's Disease
ASPIRATION
of air from right ventricle of heart in venous air embolism, [Stallworth & others] °1250
ASPIRIN: See Acid, acetylsalicylic
ASSOCIATION: See also American Medical Association; list of Societies at end of letter S
of American Medical Colleges, list of foreign medical schools °463; 1072—E; 1114
of Internes and Medical Students, investigation by A.M.A. Council, 992; 1088; 1092
of Medical Illustrators, Directory, 382
ASTAR'TE Two-Way Stretch Elastic Stocking, 971
ASTHENIA: See also Fatigue; Myasthenia
neurocirculatory, constitutional inferiority in, [Vergara] 673—C
ASTHMA
bacterial-allergic, [Flensborg] 1375—ab
complications: suspected periarteritis nodosa, 611
etiology: wood dust, [Ordman] 399—ab
in Sudan, 149
International Congress on (2nd), France, 195
intrinsic, [Waldbott] 490—C
trauma and, 612
treatment, ACTH, [Rose] 498—ab; [Randolph] 1365—ab
treatment, antihistamines, anemia after, [Crumbley] °726
treatment, bacterial vaccine, [Flensborg] 1375—ab
treatment, desensitization, 511
treatment, inhalation, Israel, 914
treatment, visammin (khellin), [Rosenman & others] °160
ASTON, MELVILLE J., retires, 303
ASTRAGALUS
fracture, 1381
ASYMATRINE
hydrobromide, effect on motor activity of small intestine, [Chapman & others] °629
ATABRINE: See Quinacrine
ATAXIA, Locomotor: See Tabes Dorsalis
ATELECTASIS: See Lungs, collapse
ATHEROSCLEROSIS: See Arteriosclerosis
ATHLETE'S Foot: See Dermatophytosis
ATHLETICS: See also Exercise; Golf
high school football injuries, [Hibbert] 1284—ab
ATMOSPHERE: See Air
ATOMIC ENERGY: See also Radioactive Isotopes
bomb effect on birth rate in Japan, 1296
bombing of Hiroshima survivors 3 years later, [Novy] 838—ab
explosion victims, course in treatment, N. Y., 1437
injuries, institute on treatment of, New York City, 305
radiation data available by U.S. Navy, 187
research center (British), U.S. physicians to visit, 1435
U.S. Atomic Energy Commission, (research proposals in biology and medicine) 188; (research in physical sciences) 303; (training center on development, N.Y.) 483; Oak Ridge research program of, 903; (fellowship program in industrial medicine) 1265; (Oak Ridge Institute course on instrumentation) 1267; (booklet: "Effects of Atomic Weapons") 1347; 1419
uranium and fluorine, 1070—E
warfare, burn problem in, [Evans] °1143
warfare, protection against the A-B-C War, 1013
warfare, state society urges blood typing for all persons, Pa., 1267
weapons, effects 1347; 1419
ATOMIZER
DeVilbiss Pocket, No. 33, 181
ATOPY: See Allergy, sensitivity
ATROPHY: See Bones; Breast
Muscular: See Dystrophy, muscular
Optic: See Nerves, optic

ATROPINE
effect on motor activity of small intestine, [Chapman & others] *627
sulfate in postcholecystectomy syndromes, [Amelar] 761—C
AUDIOVISUAL Education: See Moving Pictures
AUREOMYCIN
dosage in primary atypical pneumonia, [Bloidgett & others] *878
histolytic antibiotics, 477—E
Italian Congress on Antibiotics discusses, 1443
toxicity: angioneurotic edema and rash, [Parets] *653
toxicity: black tongue, [Phillips] 1514—C
transfer to breast milk, [Guilbeau & others] *525
Treatment: See also Actinomycosis: Amebiasis; Gonorrhea; Influenza; Parotitis, Epidemic; Pneumonia; Poliomyelitis; Q Fever; Shigella enteritis; Typhoid; Whooping Cough
treatment (after penicillin) in Weil's disease, [Batchelor & Todd] *21
treatment in obstetrics, [Guilbeau & others] *520
treatment not cause of arthritis, 1038
treatment of soft tissue infections, [Logan] 837—ab
treatment, oral, in syphilis, [Kierland] 497—ab
treatment plus chloramphenicol in herpes zoster, [Bolus] 1029—ab
treatment plus streptomycin in influenzal meningitis, [Appelbaum & Nelson] *715
AURICULAR FIBRILLATION
in senile heart, 1382
rheumatic heart disease with, [Askey] 1448—ab
AURICULAR FLUTTER
treatment, quinidine intravenously, [Blinder] 682—ab
AUROTHERAPY: See Gold treatment
AUSCULTATION
cardiac, error in; pseudopericarditis, [Schnur] *969
AUSTRIAN
doctors to Sweden, 488; 1444
AUTOHEMAGGLUTIN: See Agglutinins
AUTOMOBILES
accidents, safety first on Fourth of July, 818—E
accidents, midyear traffic deaths up 11% over 1949, 1354
accidents, traffic fatalities decrease in small cities, 665
driving, effect of alcohol ingestion on, [Bjerver] 927—ab
AUTOSENSITIZATION: See Allergy
AVIATION: See also Altitude, high
alcohol tolerance in air passenger [Newman] 141—ab
ambulance planes, county societies should obtain C.A.A. list, 1419
hazard of poisoning from aerial spraying of insecticides, 1159—E
hearing of airline pilots, [Simonton] 319—ab
medicine, course for U.S. Navy reserve officers, 750
quarantine and inspection requirements of aircraft, eliminate duplication, 1265
AVIATION, U.S. AIR FORCE
medical examiners, 1186
medical service personnel, outlines program for recall, 1502
new flight surgeons; nominations for regular commissions, 821
officers, immediate need for, 1490
selection of flying personnel, 1349
volunteer active duty applications, accepted, 1186
AVITAMINOSIS: See Vitamins deficiencies
AVOCATIONS: See Physicians, avocations
AWARDS: See Prizes
AYFIVIN, biologic study, [Arriagada] 848—ab

B

BACILLEMIA: See Bacteremia
BACILLUS: See Bacteria
BACITRACIN
treatment of amebiasis, [Most & others] *792
treatment of gangrene, [Meleney] 678—ab
BACKACHE: See also Sciatica; Spine, intervertebral disk
spasm in skeletal muscle, [Harell & others] *640
BACTEREMIA
radiation, 1072—E
treatment, terramycin, [King & others] *1
BACTERIA: See also Microbiology; Salmonella; Shigella; Staphylococcus; Tubercle Bacillus; under names of specific organs
Abortus Infection: See Brucellosis
Coli: See Escherichia coli
Culture: See Brucellosis; Rickettsia
in Blood: See Bacteremia
Infection: See Infection
Lactobacillus Casei Factor: See Acid, folic
licheniformis, polypeptide mixture obtained from, [Arriagada] 848—ab
Proteus: See Proteus
BACTERIA—Continued
reaction from eating thawed frozen vegetables, 942
synthesis of vitamin B_{12} in alimentary tract, [Dyke] 1212—ab
Tularense: See Tularemia
Vaccine: See Vaccines
BACTERICIDES: See Disinfection
BACTERIOLOGIC WARFARE: See Biologic Warfare
BACTERIUM: See Bacteria
BAG
disposable ileostomy and colostomy bag, [Gladstone & Turell] *894
BAL
treatment of facial paralysis with Guillain-Barré syndrome and infectious mononucleosis, [Creaturo] *234
treatment of meningitis during gold therapy, [Myerson] *1336
treatment of thallium toxicosis, [Mazzei] 208—ab
BALDNESS: See Alopecia
BALLOON
abrasive, for exfoliation of gastric cancer cells, [Panico & others] *1308
BANG'S Disease: See Brucellosis
BANK (therapeutic): See Blood Transfusion; Blood Vessels; Bones; Eyes
BANTHINE
treatment of hyperhidrosis, [Grimson & others] *1331
treatment of peptic ulcer, [Grimson & others] *873
BARBITURATES: See also Pentobarbital Sodium; Phenobarbital
addiction to, 1126
poisoning, Metrazol and supportive therapy for, [Jones & others] *884
BARRE-Guillain Syndrome: See Guillain-Barré Syndrome
BARTSCH Fund: See Foundations
BASAL Metabolism: See Metabolism
BASEDOW'S Disease: See Goiter, Toxic
BASIC SCIENCE
boards of examiners in, *469; 475—E; (list of executive officers) *471
fees for examination in, *471
laws and year of enactment according to states, *469; 475—E
reciprocity, endorsement, waiver of exemption policies of, *470
BASOPHIL Degeneration: See Myocardium
BATHING: See also Swimming
beaches study, New York City, 563
BATHS: See also Health resorts
hot, and spermatogenesis, 781
BAUER, LOUIS H.: presents A.M.A. arguments against Reorganization Plan 27, 819
BCG: See Tuberculosis, immunization, BCG
BEACHES: See Bathing Beaches
BEAUTY Preparations: See Cosmetics
BED Capacity: See Hospitals
Rest: See Convalescence
BEDPAN
deaths, [McGuire] 496—ab
BEECH-NUT
Cereal for Babies, 24
Strained Sweet Potatoes; Strained Garden Vegetables, 1415
BEER
average beer and 3.2% beer compared; cause of arthritis, 214
"cellulose dope" and paralysis, 513
BEES
lesions caused by sting, [Crewe] 601—ab
BEHAVIOR: See also Mental Hygiene; Personality
disorders, prefrontal leukotomy in minors, [Yahn] 1290—ab
effect of color on, 694
sexuality in male child, 1380
BEHCET'S DISEASE
mucocutaneous-ocular syndromes, [Robinson] 1022—ab
BELGER, NIHAD RESHAD, Minister of Health and Social Assistance, Turkey, 1511
BELL'S Palsy: See Paralysis, facial
BELLADONNA
effect on motor activity of small intestine, [Chapman & others] *627
BENADRYL: See Diphenhydramine
BENSON LABORATORIES
Formula A-N-1, FTC action, 377
BENZAZOLINE HYDROCHLORIDE
treatment of multiple sclerosis, [Schumacher] *1243
treatment of poliomyelitis with priscoline, (reply) [Sands] 696
BENZYL BENZOATE
N.N.R., (Blue Line; Veltrex) 815
BENZODIOXAN
diagnosis of pheochromocytoma, [Goldenberg & Aranow] *1139
BENZOHYDRYL Alkamine Ether: See Diphenhydramine Hydrochloride
BEQUESTS: See Donations (cross reference)
BERIBERI
mortality in Bataan and artificially enriched rice, [Salcedo] 600—ab
BERTNER Foundation Fellowship and Lecture: See Foundations
BERYLLIUM
granulomatosis, effect of ACTH, [Kennedy] 1518—ab
oxide, osteosarcoma induced by, [Dutra] 1021—ab
oxide, porcelain dust, cancer of bladder with metastasis in lungs, 1297
toxicity, [Stokinger] 1023—ab
toxicity, chronic pulmonary granulomatosis in workers, [Robert] 1277—ab
toxicity, experimental poisoning, [Aldridge] 848—ab
BESNIER-Boeck's Sarcoid: See Sarcoidosis
BETATRON
treatment of cancer, [Schubert] 1374—ab
BEVERAGES: See also Milk
Alcoholic: See Alcohol
carbonated, dispensing machines in school buildings, (Council report), 24
BEVERIDGE Plan: See National Health Service (England)
BEVIDOX, N.N.R., (Abbott) 1486
BEZOAR: See Trichobezoar
BIERMER'S Anemia: See Anemia, Pernicious
BIERRING Award: See Prizes
BILE
peritonitis without perforation, [Verhage] 931—ab
steroids, cortisone synthesized from, 1380
BILE DUCTS
calculi and congenital stenosis, immediate cholangiography, [Carter & Gillette] *951
surgery, hepatocholangiogastrostomy, [Seifert] 1373—ab
BILIARY TRACT: See also Bile; Bile Ducts; Gallbladder; Liver
roentgen study, immediate cholangiography [Carter & Gillette] *951
surgery: biliary-intestinal anastomosis, 1196
surgery, new technic of plastic reconstruction, Colombia, 671
BILLS, Legislative: See Laws and Legislation
BIOLOGIC WARFARE
protection against the A-B-C War, 1013
BIOPSY: See also Bone Marrow; Liver; Stomach
curettement technic, [Traenkle & Burke] *429
BIRDS: See also Psittacosis
arteriosclerosis, [Lindsay] 1116—ab
BIRTH: See Labor
Control: See Contraception
in Hospitals: See Hospitals, maternity
Multiple: See Twins
Premature: See Infants, premature; Labor, premature
Rate: See Vital Statistics
BIRTHMARK: See Nevus, pigmented
BISMUTH
glycolylarsanilate, Milibis, N.N.R., (description) 895; (Winthrop-Stearns) 896
treatment plus fever in neurosyphilis, [Nørgaard] 1033—ab
BITE: See also Snake
causes of grinding of teeth in children, (reply) [Bulger] 612
BLACK hairy tongue: See Tongue
BLACKHEAD: See Comedos
BLADDER: See also Urinary System
cancer, stilbamidine in, [Harrison] 844—ab
foreign body: thermometer, Stern-McCarthy resectoscope to remove, [Schloss & Solomkin] *804
necrosis (secondary) after treating cervical cervix with roentgen rays and radium, 694
radioactive isotope solution for intracavitary irradiation, [Wallace] 601—ab
staining from silver preparations, 1222
surgery, resection for recurrent cancer of cervix, [Boyd] 767—ab
BLALOCK-Taussig Operation: See Heart anomalies
BLASTOMYCOSIS
Brazilian, central nervous system lesions in, 390
BLEEDING: See Hemorrhage
BLEPHARITIS: See Eyelids
BLIND SPOT: See Scotoma
BLINDNESS: See also Conjunctivitis, infectious acute in newborn; Nerves, optic atrophy; Vision
causes, meningioma of optic foramen, [Craig] 501—ab
causes, Norway, 757
causes, Turkey, 311
prevention, A.M.A. resolution on dissemination of information on, 1082; 1099
prevention in newborn: penicillin-silver nitrate also sulfathiazole, [Watts & Gleich] *635; [Lehrfeld] 1360—C
prevention, National Council to Combat Blindness, Inc., research program, 1190; (accepting requests for grants) 1438
BLISTER, Fever Blister: See Herpes simplex
BLOATING: See Flatulence
BLOOD
alcohol test of ability to drive, [Bjerver] 927—ab
Bacteria in: See Bacteremia
Bank: See Blood Transfusion
Cells: See Erythrocytes; Leukocytes
chlorides, hypertension encephalopathy with hypochloremia, [Hilden] 1032—ab
cholesterol, atherosclerosis, hypercholesteremia in alloxan diabetic, [Adams] 198—C

BLOOD—Continued
cholesterol: normal values, 858
chylomicrons (plasma) in etiology of atherosclerosis, 1344—E
circulation, blanching of one arm on elevation, 1298
circulation (peripheral), sympatholytic drug effect on, [Wakim] 597—ab
circulation (renal), Colombia, 672
circulation time, methods of determining, 148
Clot: See Blood coagulation; Blood prothrombin; Thrombophlebitis; Thrombosis
Coagulation, Anticoagulants: See also Dicumarol; Heparin
coagulation, anticoagulants in acute coronary occlusion, [Mullins] 1029—ab
coagulation, anticoagulants, in multiple sclerosis, [Schumacher] *1243
coagulation, anticoagulants in thromboembolic complications of myocardial infarction, [Schilling] *785
coagulation, anticoagulants to prevent recurrent embolism of intracardiac origin, [Cosgriff] *870
coagulation, hypocoagulability of irradiated plasmas; use as anticoagulant, [Cutler & others] *1057
coagulation of serum (thermal) in diagnosis, [Huggins & others] *11
coagulation, Weltmann reaction in endocarditis, [Djordjevic] 774—ab
coagulation, Weltmann reaction vs. sedimentation rate (Cutler) in rheumatic fever, [Nelson] 681—ab
Destruction: See Hemolysis
dihydrostreptomycin in, [Carr & others] *1223
Donors: See Blood Transfusion
Dyscrasia: See also Agranulocytosis, Acute; Anemia, hemolytic; Erythroblastosis; Jaundice, hemolytic; Hemolysis; Leukemia; Polycythemia
dyscrasia, fellowships for research by Hematology Research Foundation, 484
dyscrasia; (malignant), nitrogen mustard for, [Tsevrenis] 932—ab
fats, acute pancreatitis with hyperlipemia, [Gardner] 1285—ab
Flow: See Blood circulation
formation (extramedullary): myeloid metaplasia, [Block & Jacobson] *1390
formation of erythrocytes and hemoglobin, role of iron, [Dahl] 1525—ab
formation, response to vitamin B_{12}b, [Spies] 206—ab
Groups: See also Rh Factor
groups, hemagglutination inhibition test in virus and rickettsial diseases, [Milzer] *220
groups (incompatible), replacement transfusion after giving, [Conley] 134—ab
Groups O (universal donors): See Blood Transfusion donor
groups, state society urges blood typing for all persons, Pa., 1267
heart blood and peripheral blood contrasted, 184—E
heart, (residual), [Friedman] 1019—ab
Hemoglobin: See Hemoglobin
in Urine: See Hematuria
Infection: See Septicemia
Injection of Whole Blood or Its Derivatives: See Blood Transfusion
Iodine in heart insufficiency, [Roversi] 209—ab
Loss of: See Hemorrhage
Menstrual: See Menstruation
oxygen, anoxemia tests in coronary insufficiency, 1261—E
oxygen, intermittent positive pressure breathing, [Motley] 1025—ab
oxygen, mental changes occurring in chronic anoxemia [Comroe & others] *1044
penicillin levels after penicillin and sulfadiazine therapy (reply) [Kagan] 696
Plasma: See under various headings of Blood; Blood Transfusion; Serum
Platelets: See Purpura, thrombopenic
potassium, electrocardiogram changes with hypo- and hyperkaliemia, [Darrow & Pratt] *434; *435; (diagram) *436
Pressure: See BLOOD PRESSURE
Program: See Blood Transfusion
protein (circulating) and tissue protein [Harroun] 769—ab
proteins, early postoperative use of human serum albumin [Fletcher] 684—ab
proteins in parenchymal disease of liver, [Stroebe] 1216—ab
proteins (serum), determination, 407
proteins (serum) in virus hepatitis, [Ricketts] 395—ab
proteins (serum) thermal in diagnosis, [Huggins & others] *11
Prothrombin: See also Blood coagulation
prothrombin level, estimating, 407
prothrombin time, determination, (reply) [Shapiro] 1458
quinidine concentrations, [Sokolow] 1204—ab
sedimentation rate (Cutler) in rheumatic fever, [Nelson] 681—ab
Serum: See various subheads under Blood; Blood Transfusion; Serum
sludged, [Bellis] 1449—ab
Streptomycin in: See Blood, dihydrostreptomycin
Sugar: See also Diabetes Mellitus
BLOOD—Continued
sugar, insuloma with absence of hypoglycemia, [Fries] 931—ab
sugar: profuse perspiration before meals; role of hypoglycemia, (reply), [Wolf] 782
sugar, spontaneous hypoglycemia after insulin coma for schizophrenia, [McGrath] 930—ab
Tests: See Cancer, diagnosis; Syphilis, serodiagnosis
theophylline levels, [Waxler & Schack] *736
Transfusion: See BLOOD TRANSFUSION
Typing: See Blood groups
Universal: See Blood Transfusion, donor
Vessels: See BLOOD VESSELS
virus hepatitis in workers exposed to whole blood and plasma, [Kuh & Ward] *631
Vomiting of: See Hematemesis
BLOODLETTING: See Venesection
BLOOD PRESSURE
at different altitudes, 149
low, incidence, [Master & others] *1466; (table) 1468
normal range and its clinical implications, [Master & others] *1464
BLOOD PRESSURE, HIGH
adrenal cortex role in [Eitenne-Martin] 1526—ab
complications, encephalopathy with hypochloremia, [Hilden] 1032—ab
complications: pedunculated ball thrombus in hypertensive heart, [Strade] *1409
etiology: arterenol, benzodioxan test of pheochromocytoma [Goldenberg & Aranow] *1139
etiology: desoxycortisone [Selye] 685—ab
etiology: pheochromocytoma, 183—E; 216
etiology: pheochromocytoma "cotton wool exudate" in retina, [Hall] 1018—C
etiology: pipericylmethylbenzodioxane, and pheochromocytoma, [Calkins] 596—ab
etiology: sodium chloride, in rats, [Sapirstein] 683—ab
etiology: toxic products used in cleaning clothes? 1220
in young man, 939
incidence, [Master & others] *1466; (table) 1468
portal, shunt operations, [Wilson] 849—ab
prognosis, (reply) [Perera] 1298
pulmonary, in heart disease, [Borden] 1282—ab
seminar on, U. of Minnesota, 1267
simplified experimental hypertension, 244—E
treatment in pheochromocytoma, 216
treatment, low sodium diet, [Kert & others] *721
treatment protein free diet in essential type [Kohari-Kucharik] 394—ab
treatment, standard operation, [McGregor] 1453—ab
treatment, sympathectomy, [Platt] 1371—ab
treatment, sympathectomy in cardiovascular complications [White & others] *1311
treatment, tetraethylammonium chloride in essential type, [Duret] 1290—ab
treatment, thoracolumbar splanchnicectomy, 1532
treatment, thyroid extract, [Menof] 1213—ab
treatment, veratrum viride, [Coe & others] *5; [Wilkins] 1282—ab
treatment, veratrum viride, significance of "Craw" unit, 1221
vascular, in toxemia of pregnancy, 1489—E
vascular, prognosis, [Frant] 1278—ab
BLOOD TRANSFUSION
Association, New York City, 753
blood banks, A.M.A. community exhibit, 272
blood banks, anniversary of Blood Center, Kentucky, 663
blood banks, A.M.A. Committee on, (report) 1072—E; 1077; (questionnaire on) 1160—E
blood banks, brucellosis and bank blood, [Spink] 1026—ab
blood banks, filled hypodermic syringe to induce anesthesia for venesection in donors, [Wolf & others] *431
blood banks, first meeting of all organizations concerned with national emergency blood program, 478
blood banks, Red Cross blood collections, 1264
blood banks, survey by A.M.A. Bureau, 1072—E; 1078
blood collection, American Red Cross accepts request of Secretary of Defense, 1439
blood collection, standardized methods for, 1417—E
blood donor, air embolism in; use of vacuum set, [Ende & Ziskind] *1483
blood donor, services, crisis, Australia, 388
blood donors, care of after giving blood; possibility of death, 1038
blood donors, universal, dangerous, [Erwin] 497—ab
exchange, and toxicosis, France, 194
exchange, for erythroblastosis fetalis, [Wiener] 205—ab
into jugular vein, [Seidler] 932—ab
massive, employment in extensive operations, [Mino] 1279—ab
massive sternosternal, in medullary aplasia and acute leukemia, [Danopoulos] 322—ab
multiple, exogenous hemochromatosis after, [Norris & McEwen] *740
BLOOD TRANSFUSION—Continued
of blood and plasma to correct protein deficiencies in surgical patients, [Allen] 593—ab
of certain irradiated plasmas [Cutler & others] *1057
of homologous and conditioned O blood, reactions to [Klendshoj] 841—ab
of plasma, acute ischemia of limb after [Dudley] 399—ab
of Rh-negative blood for all Rh-negative recipients, 1296
of sedimented erythrocytes in erythroblastosis fetalis, [Pennell] 840—ab
positive pressure vs. gravity method for, [Murphy] 673—C
replacement, after giving incompatible blood, [Conley] 134—ab
replacement, in erythroblastosis fetalis, [Gautier] 1122—ab
BLOOD VESSELS: See also Aorta; Arteries; Capillaries; Cardiovascular System; Veins
Bank, New York, 664
Blood Supply: See Blood Vessels, disease (peripheral)
cutaneous, reactions in urticaria, [Graham & Wolf] *1396
Disease: See also Arteriosclerosis; Cardiovascular Disease; Phlebitis; Raynaud's Disease; Telangiectasia; Thrombophlebitis; Varicose Veins
disease, acetylsalicylic acid for, [Gibson] 207—ab
disease, effect of diet, 757
disease, peripheral collapse from digitoxin, [Fremont & King] *1052
disease (peripheral), continuous lumbar sympathetic block, [Ruben] 678—ab
disease (peripheral): nutritional melalgia (burning feet), [Vernon] *799
Hypertension: See Blood Pressure, High, vascular
injury from dicumarol, rutin to prevent [Matis] 1291—ab
International Society of Angiology, meeting, 1107
lower leg stasis syndrome, [Bauer] 766—ab
lymphocytic infiltration and angiogenesis, [Moschcowitz] 768—ab
revascularization of extremity by end to end arteriovenous anastomosis, [Leger] 687—ab
surgery, regional heparinization in [Freeman] 1285—ab
BLUE SHIELD: See Medical Service Plans
BOARD: See under specific names as American Board; National Board; State Board
Basic Science: See Basic Science
of Health: See Health
of Trustees: See American Medical Association
BOATS: See Ships
BODY
Build: See Constitution
danger of painting body with Venus rich-gold-brilliant for a play? 327
Dead: See Cadavers
Heat Production: See Metabolism, basal
height, effect on blood pressure, [Master & others] *1466
Position of: See Posture
Temperature: See Fever; Temperature, Body
Weight: See Obesity
weight, effect on blood pressure, [Master & others] *1466
weight, water retention and diet relation to, 1381
BOECK'S Sarcoid: See Sarcoidosis
BOILS: See Furunculosis
BOMBS, Atomic: See Atomic Energy
BONE MARROW: See also Osteomyelitis
biopsy not justified in falciparum malaria, [Zacharias] 601—ab
disease, myeloid metaplasia, [Block & Jacobson] *1390
rib puncture for obtaining [Moulton] 844—ab
BONES: See also Cranium; Osteo—; Ribs; Spine
atrophy, extreme degree, in rheumatoid arthritis, 150
bank (Duane A. Meier), Texas, 906
bank, experiences in plastic surgery, [Converse] 1209—ab
cancer, metastatic from prostate, [Oelbaum] 1524—ab
disease, osteoporosis in woman 73, 1382
disease, osteoporosis, treatment, 1457
fibrous dysplasia, [Russell] 1519—ab
fluorine retention, [Jackson] 1281—ab
Fracture: See Fractures
fragility, treatment? 408
granuloma inguinale [Lipp] 1369—ab
involvement in cryptococcosis (torulosis), [Collins] 495—ab
manifestations of leukemias in children, [Marquézy] 774—ab
mineral content, X-ray estimation, [Henny] 771—ab
skeletal lesions in leukemia, effect of aminopterin, [Silverman] 1523—ab
tuberculosis, calcium thionate in, [Santo Tomas Cobos] 1121—ab
tumors, benign chondrosteoblastoma, [Copello] 505—ab
tumors, sarcomas with long survival, [Coley] 1519—ab

BOOKS: See Journals; Library; Book Notices at end of letter B; Medicolegal Abstracts at end of letter M
BOONE, J. T., address at A.M.A. session, 1161
BORDEN Undergraduate Award: See Prizes
BORIC ACID: See Acid, boric
BORZELL, F. F., Speaker of House of Delegates, (portrait) 701; (address) 975; (A.M.A. Reference Committee report) 1087; (re-election, remarks) 1163
BOTALLO'S Duct: See Ductus Arteriosus
BOTTLE: See Labels
Feeding: See Infants, feeding
BOWEL MOVEMENT: See Feces
BOWELS: See Intestines
BOY SCOUTS jamboree, 657—E
BRAIN: See also Cranium; Meninges; Nervous System
abscess complicates congenital heart disease with septal defects, [Sancetta] 1205—ab
carotid cerebral arteriography, [Rogé] 687—ab
changes in diabetes, [DeJong] 923—ab
cysts, diagnosis of paraphysial cysts, [Bull] 1287—ab
Disease: See also Epilepsy; Guillain-Barre Syndrome
disease and gastric ulcer, [Staemmler] 504—ab
disease, encephalopathy after diphtheria-pertussis inoculation, [Anderson] 1212—ab
disease, hypertensive encephalopathy with hypochloremia, [Hilden] 1032—ab
electroencephalogram in subdural hematoma, [Smith] 1521—ab
electroencephalograph, Grass, Model 111-C, 1487
electroencephalography, effects of ACTH therapy, [Hoefer & Glaser] *620
electroencephalography importance for general practice, [Zfass] 206—ab
electroencephalography, practical applications, [Ferrero] 1291—ab
hemorrhage, hemianopsia due to 216
hemorrhage (spontaneous and traumatic), [Grant] 917—ab
Inflammation: See Encephalitis
injuries, school for children with, Illinois, 904
ischemia (acute), histamine therapy [Furmanski] 839—ab
roentgen study, pneumoencephalography in epileptics, [Hedegaard] 1122—ab
surgery, excise posterior central convolution for phantom limb pain, [Stone] 1449—ab
surgery, prefrontal leukotomy in minors with behavior disorders, [Yahn] 1290—ab
surgery, section of corpus callosum in epilepsy, [Kopeloff] 1449—ab
surgery, treatment of psychomotor epilepsy, [Morris] 924—ab
surgery, unilateral prefrontal lobotomy for pain, [Rowe] 1027—ab
Syphilis: See Neurosyphilis
tuberculoma, streptomycin in surgical treatment, [Obrador] 1120—ab
tumors, intradural and extradural epidermoids, [Grant] 1520—ab
BRASIL VITAL, death, at 85, 1016
BREAD, sodium propionate in, 782
BREAKFAST Food: See Cereal Products
BREAST
atrophy, 150
cancer and testosterone, 694
cancer, metastasis after mastectomy, 328
cancer, progesterone and testosterone subcutaneously; use 20 gage needle, 1534
cancer, testosterone for metastases from, [Preston] 139—ab
cancer, treatment evaluated, [Orr] 1285—ab
discharge from inverted nipple, 696
discharge (occasionally bloody) from nipples, 512
discharge (translucent), 326
Feeding: See Infants, feeding; Lactation
hypertrophy in male (boy 15), etiology, 327
hypertrophy, overdevelopment, plastic surgery for, 1222
Inflammation (puerperal), penicillin for, [Pütz] 932—ab
keratosis of nipples, 328
Milk: See Lactation; Milk, human
self examination (film review), 673
surgery, pain and edema after radical mastectomy, 782
BREATHING: See Respiration
BRITISH: See also Royal
Anti-Lewisite: See BAL
Atomic Research center, U. S. physicians visit, 1435
Government, National Health Service: See National Health Service
government, public spending, England, 310
Medical Association, (health insurance plans, Australia) 569; (representative Dr. Wiles presented at A.M.A. session) 987; (plan for exchange of physicians between Great Britain and United States) 1184; (policy toward National Health Service) [Martin & others] *1421
surveys of medical education and medical practice in Great Britain, 983; 987; [Diehl] *1492
United Provident Association, advertising of national health service, 746—E
BROADCASTING: See Radio; Television
BROMSULPHALEIN: See Sulfobromophthalein Sodium
BRONCHI: See Bronchus
BRONCHIAL Asthma: See Asthma
BRONCHIECTASIS
treatment [Anderson] 599—ab
treatment, lobectomy in woman 82, [Rosenblatt & others] *552
treatment, lung resection in children, [Buckles] *344
treatment, surgical, of bilateral type, [Kergin] 770—ab
BRONCHUS: See also Bronchiectasis
cancer and pulmonary tuberculosis, [Shefts] 1021—ab
cancer (cytologic diagnosis) [Woolner] 499—ab; [Clerf] 593—ab; [Hengstmann] 1525—ab
cancer, cytology, [Reingold] 1022—ab
cancer (inoperable), nitrogen mustard in, [Kent] 842—ab; [Lynch] 1030—ab
cancer (minute early) [Petersen] 138—ab
cancer, nonmalignant lung lesions simulating, [Llavaag] 1213—ab
cancer (terminal bronchiolar) [Smith] 138—ab
cancer, tobacco smoking and, [Wynder & Graham] *329; [Levin & others] *336; [Grace] 1446—C
foreign bodies in tracheobronchial tree in children, removal, 780
mycosis, simultaneous primary occurrence in 4 children and mother, [Hamil] 676—ab
BRONZE Diabetes: See Hemochromatosis
BRUCELLOSIS
Bang's disease transmitted through eggs if hens fed milk from infected cow? 1380
bank blood and, [Spink] 1026—ab
Brucella abortus cultivated from duodenal fluid, [de Langen] 1374—ab
complications: chronic splenomegalic cirrhosis, [Signorelli] 851—ab
Inter-American Congress on, Washington, 307
multiple sclerosis relation to, [Spicknall & others] *1470; [Eisele & others] *1473
prevention with vaccine, 610
treatment, 1038
treatment, chloramphenicol, aureomycin, para-aminosalicylic acid, Italy, 1110
BUBO, Climatic: See Lymphogranuloma Venereal
BUENOS AIRES, University of: See University
BUIE Health Resort, Council accepted, 555
BUILDING: See Floors; Hospitals, building program
BULLET Wounds: See Wounds, gunshot
BULLETIN: See Journals
BURDICK Electrocardiograph, Model EK-1, 1410
BUREAU A.M.A.: See American Medical Association
BURNING sensation in eyes, 693
sensation of feet (Melalgia), [Vernon] *799; 1458
BURNS: See also Sunburn; Medicolegal Abstracts at end of letter M
electrical, of mouth, [Tummers] 1214—ab
problem in atomic warfare, [Evans] *1143
BURSA: See Hygroma
BURSITIS
of shoulder, differentiating from tearing or evulsion of subcapsularis, 407
BURTON-HILL Act: See Hospitals, building
BUTANE
gas relatively harmless, 942
BUTTER YELLOW: See Dimethylaminobenzene

Book Notices

Aagesen, E., trans., Trolle's Accessory Bones of Human Foot, 689
Abderhalden, R., Grundriss der Allergie, 1379
Abdomen
I tumori addominali: Criteri per la diagnosi clinica, [Douglas] 1218
Abnormalities
La chirurgia delle malformazioni congenite del cuore e dei grossi vassi, [d'Errico] 1294
Achieving Maturity, [Warters] 1293
ACTH
Proceedings of First Clinical ACTH Conference, [Mote] 1378
Adaptation, [Romano] 777
Adolescence
Achieving Maturity, [Warters] 1293
Boy Grows Up, [McKown] 778
How to be Happy Though Young: Real Problems of Real Young People, [Lawton] 1456
Varieties of Delinquent Youth, [Sheldon] 1218
Adrenals
Diagnosis and Treatment of Adrenal Insufficiency, [Thorn] 1292
Mammalian Adrenal Gland, [Bourne] 147
Age
How to Guess Your Age, [Ford] 1292
Air Pollution in Donora, Pa., [Schrenk & others] 323
Alcoholism
Drinking's Not the Problem, [Capp] 692
Book Notices—Continued
Allergy
Allergy in Relation to Otolaryngology, [Hansel] 1295
Grundriss der Allergie: Theorie und Praxis, [Abderhalden] 1379
Primer of Allergy, [Vaughan & Black] 852
Alpers, B. J., Clinical Neurology, 1219
America
Road Ahead: America's Creeping Revolution, [Flynn] 392
American Academy of Orthopaedic Surgeons Instructional Course Lectures, [Blount & Banks] 778
American Cancer Society, Proceedings of First National Cancer Conference (1949), 777
American Medical Association Interns' Manual, 1295
Therapeutic Trials Committee Proceedings of First Conference on Steroid Hormones and Mammary Cancer, 324
American Public Health Association, Control of Communicable Diseases in Man, 1292
Anatomy: See also Morphology; Pathology; Physiology
Applied Anatomy and Kinesiology: Mechanism of Muscular Movement, [Bowen] 403
Cunningham's Manual of Practical Anatomy, [Brash] 1295
Dental Anatomy, [Zeisz & Nuckolls] 506
Functional Human Anatomy, [Simkins] 605
Human Sex Anatomy: Topographical Hand Atlas, [Dickinson] 854
Mammalian Adrenal Gland, [Bourne] 147
Some Trends in Neuroanatomy, [Rasmussen] 1124
Anderson, L., Respiratory Enzymes, 853
Andrus, W. DeW., Advances in Surgery, 1123
Anesthesia
Anaesthesi, [Mørch] 1124
Fundamental Considerations in Anesthesia, [Burnstein] 1293
Investigation on the Course and Localisation of Magnesium Anesthesia: Comparison with Ether Anesthesia, [Engbaek] 508
Modern Practice in Anesthesia, 1949, [Evans] 506
Resuscitation and Anesthesia for Wounded Men, [Beecher] 606
Anglesio, E., I tumori del mediastino, 1219
Animals
How to Befriend Laboratory Animals, [Hume] 605
Annual Reviews: See Yearbook
Antibiotics
Survey of Penicillin, Streptomycin, and Other Antimicrobial Substances from Fungi, Actinomycetes, Bacteria and Plants, [Florey] 1217
Antioxidants
Biological Antioxidants, [Mackenzie] 1379
Aorta
Variations in Aortic Pressure in Dogs, [Skouby] 323
Appendicitis
Acute Appendicitis and its Complications, [Fitzherbert] 690
Arnold, O. H., Akute Infektionskrankheiten und Hochdruck, 325
Arteritis
Union International thérapeutique, Paris, 1948, 936
Arthritis
Arthritis and Allied Conditions, [Comroe] 145
Atlas
Descriptive Atlas of Radiographs: Aid to Modern Clinical Methods, [Bertwistle] 608
Human Sex Anatomy: Topographical Hand Atlas, [Dickinson] 854
Medical Clinics on Bone Diseases, [Snapper] 213
Radiographic Atlas Development of Hand and Wrist, [Greulich & Pyle] 1124
Atomic Energy
Conference on Biological Applications of Nuclear Physics July 12-27, 1948, 1125
Ionization Chambers and Counters, [Rossi & Staub] 325
Author Publisher Printer Complex, [Gill] 1125
Autobiography: See Physicians, biographies
Aviation
Aviation Medicine: Its Theory and Application, [Bergin] 934
Babe in a House, [Smart] 1379
Babkin, B. P., Secretory Mechanism of Digestive Glands, 607
Bacteriology
Industrial Microbiology, [Prescott & Dunn] 506
Laboratory Manual of Microbiology, [Peltier & Lewis] 1219
Microbiology, [Kelly & Hite] 325
Textbook of Bacteriology, [Browning & Mackie] 213
Bärtschi-Rochaix, W., Migraine Cervicale (das encephale Syndrom nach Halswirbeltrauma), 324
Bailey, H., Physiology of Thought: Functional Study of the Human Mind in Action, 605
Barsky, A. J., Principles and Practice of Plastic Surgery, 1037
Bast, T. H., and Anson, B. J., Temporal Bone and the Ear, 1219

Book Notices—Continued
Batty, R. J., Enuresis or Bed-Wetting, 691
Baÿ, P., Actualities chirurgicales, 1949, 1528
Bed-wetting
Enuresis, [Batty] 691
Beecher, H. K., Resuscitation and Anesthesia for Wounded Men: Management of Traumatic Shock, 606
Beeson, P. B., editor, 1949 Year Book of Medicine, 937
Behavior
Organization of Behavior: Neuropsychological Theory, [Hebb] 1123
Bellak, L., Dementia Praecox: Past Decade's Work and Present Status, 1531
Bellevue Hospital, Candle in Her Hand: A Story of the Nursing Schools [Giles] 146
Bender, R. N., Philosophy of Life, 211
Bentley's Text-Book of Pharmaceutics, [Davis & others] 690
Bergin, K. G., Aviation Medicine: Its Theory and Application, 934
Bergler, E., Writer and Psychoanalysis, 1379
Bernard, C., Introduction to Study of Experimental Medicine, 401
Bertwistle, A. P., Descriptive Atlas of Radiographs, 608
Best, C. H., and Taylor, N. B., Physiological Basis of Medical Practice, 1294
Bibliography
Medical Books, Libraries and Collectors, 1379
Bile
Hematin Compounds and Bile Pigments, [Lemberg & Legge] 404
Binger, C., More About Psychiatry, 145
Biochemistry
Chemical Constitution and Biological Activity, [Sexton] 691
Heavy Metal Prosthetic Groups and Enzyme Action, [Warburg] 854
Outlines of Biochemistry, [Gortner] 691
Quantitative Ultramicroanalysis, [Kirk] 692
Biographies: See Physicians
Biology
Biological Antioxidants, [Mackenzie] 1379
Biology of Mental Defect, [Penrose] 403
Conference on Biological Applications of Nuclear Physics, 1948, 1125
Biophysical Reasearch Methods, [Uber] 1376
Black, J. H., revisor, Vaughan's Primer of Allergy, 852
Bladder
Clinical Cystoscopy, [McCrea] 213
Cystoscopy and Urography, [Macalpine] 510
Bladergroen, W., Physikalische Chemie in Medizin und Biologie, 212
Blain, D., editor, Better Care in Mental Hospitals, 1529
Blochman, L. G., Diagnosis: Homicide, Casebook of Dr. Coffee, 1294
Blome, W. H., and Stocking, C. H., Fundamentals of Pharmacy, Theoretical and Practical, 1455
Blood
Blood Clotting and Allied Problems, [Flynn] 1292
Coagulation, Thrombosis, and Dicumarol with Appendix on Related Laboratory Procedures, [Shapiro & Weiner] 1217
Hematin Compounds and Bile Pigments, [Lemberg & Legge] 404
Leitfaden der Blutmorphologie, [Schudel] 325
Blount, W. P., and Banks, S. W., editors, American Academy of Orthopaedic Surgeons Instructional Course Lectures, 778
Blue Cross, Hospitalization of the People of Two Counties, Michigan, [Sinai & Paton] 934
Böhm, F., Untersuchungen über die Tuberkulose des Dünndarmes, 1531
Bone Marrow
Das menschliche Knochenmark, [Rohr] 855
Bones
Accessory Bones of the Human Foot, [Trolle] 689
Medical Clinics on Bone Diseases: Text and Atlas, [Snapper] 213
Pyramideneiterungen: Deren Verhütung und Behandlung, [Voss] 507
Radiographic Atlas of Skeletal Development of Hand and Wrist, [Greulich & Pyle] 1124
Story of Nutritional Research: Effect of Some Dietary Factors, [Mellanby] 1377
Books
Medical Books, Libraries, and Collectors, [Thornton] 1379
Bourne, G. H., Mammalian Adrenal Gland, 147
Bowen, W. P., Applied Anatomy and Kinesiology: Mechanism of Muscular Movement, 403
Boy Grows Up, [McKown] 778
Boyd, M. F., Malariology, 690
Brain
Clinical Electroencephalography, [Cohn] 507
Diagnosis and Treatment of Brain Tumors and Care of Neurosurgical Patient, [Sachs] 935
External Morphology of Primate Brain, [Connolly] 775
Brash, J. C., Cunningham's Manual of Practical Anatomy, 1295
Breast
Proceeding of First Conference on Steroid Hormones and Mammary Cancer, 324
British Pharmaceutical Codex, 1949, 508
Brockbank, E. M., Conduct of Life Insurance Examinations, 937
Broman, T., Electromyo-Mechanographic Registrations of Passive Movements, 1035
Bronchoscopy
Bronchologie, [Soulas & Mounier-Kuhn] 776
Brookings Institution, Major Problems of United States Foreign Policy, 1949-1950, 403
Browning, C. H., and Mackie, T. J., Textbook of Bacteriology, 213
Brumpt, E., Précis de parasitologie, 606
Brush Foundation, Radiographic Atlas of Skeletal Development of Hand and Wrist, [Greulich & Pyle] 1124
Bürger, M., Einführung in die pathologische Physiologie, 856
Buhl, K., Extrapleural Pneymolyse, 606
Burstein, C. L., Fundamental Considerations in Anesthesia, 1293
Businco, A., I Tumori del sistema reticoloendoteliale, 1378
Byrd, O. E., Health Instruction Yearbook, 1949, 692
Camp Counselling: Illustrated Book of Know-How for Camp Worker, [Mitchell & Crawford] 778
Cancer: See also Tumors
Cancer of Esophagus and Gastric Cardia, [Pack] 510
Mouth Cancer and the Dentist, [Martin] 937
New Light on Its Causes, Detection, Treatments, Cures and Brilliant Promise of Today's Research, [Doherty] 1123
On Development in Various Tissues in Mice Following Direct Application of Carcinogenic Hydrocarbon, [Rask-Nielsen] 776
Proceedings of First Conference on Steroid Hormones and Mammary Cancer, [A.M.A. Therapeutic Trials Committee] 324
Proceedings of the First National Cancer Conference (1949), 777
Candle in Her Hand: Story of Nursing Schools of Bellevue Hospital, [Giles] 146
Cannabis
Marihuana in Latin America, [Wolff] 212
Carbon Monoxide
Acute Carbon Monoxide Poisoning, [Zahle] 508
Cardiovascular Disease: See also Heart
Diagnosis and Treatment of Cardiovascular Disease, [Stroud] 1123
Carter, B. N., editor, Monographs of Surgery, 510
de Carvalho, L., editor, Faculté de medicine de Lisbonne, Clinique des maladies pulmonaires, 147
Caspersson, T., and Monné, L., editors, Esperimental Cell Research, 509
Castleton Medical Academy, First Medical College in Vermont: 1818-1862, [Waite] 1378
Cells: See Cytology
Chamberlain, E. N., Textbook of Medicine for Nurses, 1124
Chandler, C. A., Famous Men of Medicine, 1456
Change of Life: Modern Woman's Guide, [Edsall] 1125
Chatton, M., Margen, S., and Brainerd, H. D., Handbook of Medical Management, 510
Chemistry: See also Biochemistry; Pharmacy
Analytical Chemistry of Industrial Poisons, Hazards and Solvents, [Jacobs] 775
Chemical Constitution and Biological Activity, [Sexton] 691
Chemical Developments in Thyroidology, [Salter] 1124
Chemistry and Metallurgy of Miscellaneous Materials: Thermodynamics, [Quill] 1219
Chemistry and Physiology of Growth, [Northrop] 1377
General Chemistry, [Holmes] 778
Medizinische Chemie, [Vering] 1294
Physikalische Chemie in Medizin und Biologie, [Bladergroen] 212
Principles of Chemistry . . . for Nurses; Laboratory Guide in Chemistry, [Roe] 1530
Quantitative Ultramicroanalysis, [Kirk] 692
Cheney, G., Medical Management of Gastrointestinal Disorders, 1376
Chenoweth, L. B., Community Health, 1379
Chicago-Cook County Health Survey, [U. S. Public Health Service] 852
Children: See also Infants
Boy Grows Up, [McKown] 778
Enuresis or Bed-Wetting, [Batty] 691
Normal Sex Interests, [Strain] 1455
Your Child's Mind and Body: Practical Guide for Parents, [Dunbar] 608
Chinese, Yellow Emperor's Classic of Internal Medicine, [Veith] 509
Cholesterol
Familial Hypercholesterolemia and Xanthomatosis, [Kornerup] 935
Christopher, F., editor, Textbook of Surgery, 853
Clapp, C. Jr., Drinking's Not the Problem, 692
Clarke, B. L., and Kolthoff, I. M., editors, Analytical Chemistry of Industrial Poisons, Hazards, and Solvents, 775
Clark-Kennedy, A. E., Medicine. Diagnosis, Prevention, and Treatment, 146
Clinical Medicine: See also Diagnosis
Psychological Aspects, [Hall] 936
Coagulation, Thrombosis, and Dicumarol, [Shapiro & Weiner] 1217
Cohn, R., Clinical Electroencephalography, 507
Collens, W. S., and Boas, L. C., Helpful Hints to the Diabetic, 691
Comroe, B. I., Arthritis and Allied Conditions, 145
Communicable Diseases
Akute Infektionskrankheiten und Hochdruck, [Arnold] 325
Control of Communicable Diseases in Man, 1292
Community Health, [Chenoweth] 1379
Community Health Organization, [Hiscock] 1455
Conference on Industrial Wastes: 14th Annual Meeting, 1531
Connolly, C. J., External Morphology of Primate Brain, 775
Cookbook: See Food
Cook County, Chicago-Cook County Health Survey, [U. S. Public Health Service] 852
Cozen, L., Office Orthopedics, 1378
Craniectomy
La craniectomia a traves de los siglos, [Vara Lopez] 1531
Crippled: See Handicapped
Cummins, S. L., Tuberculosis in History from the 17th Century to Our Own Times, 937
Cunningham's Manual of Practical Anatomy, [Brash] 1295
Curare
Le curare, Union international thérapeutique, Paris, 1948, 936
Cyriax, J., Deep Massage and Manipulation Illustrated, 1528
Cystoscopy: See Bladder
Cytology
Experimental Cell Research: [Caspersson & Monné] 509
Darier, J., Civatte, A., and Tzanck, A., Dermatologie, 937
Davis, H., Partridge, M. W., and Robinson, A. I., Bentley's Text-Book of Pharmaceutics, 690
DeCourcy, J. L., and DeCourcy, C. B., Pathology and Surgery of Thyroid Disease, 404
Delgado, H., La formación espiritual del individuo: Psicologia, educación, hygiene mental, 856
Delinquency
Varieties of Delinquent Youth, [Sheldon] 1218
Dementia Praecox: Past Decade's Work and Present Status, Review and Evaluation, [Bellak] 1531
Dentistry
Dental Anatomy: Form and Function of Permanent Teeth of Decidous Teeth, [Zeisz & Nuckolls] 506
Dental Roentgenology, [Ennis] 608
Histopathology of Teeth and Their Surrounding Structures, [Kronfeld] 324
Mouth Cancer and the Dentist, [Martin] 937
Textbook of Oral Pathology, [Hill] 1292
Dermatology: See also Skin
Dermatologie, [Darier & others] 937
Histopathology of Skin, [Lever] 509
Deutsch, F., Applied Psychoanalysis: Selected Objectives of Psychotherapy, 690
Diabetes Mellitus
Diabetic's Handbook: How to Work with Your Doctor; Treatment by Diet and Insulin, [Sindoni] 605
Eating Together: Cookbook for Diabetics and Their Families, [Macaulay] 776
Helpful Hints to Diabetic, [Collens & Boas] 691
Les troubles du métabolisme de l'eau et des électrolytes dans le coma diabétique, [Plattner] 147
Diagnosis: See also Clinical Medicine
Clinical Diagnosis by Laboratory Examinations, [Kolmer] 935
Diagnosis: Homicide, Casebook of Dr. Coffee, [Blochman] 1294
Interne Praxis: Diagnose, Differentialdiagnose und Therapie, [Dopsch & Kurtisch] 1125
Dickinson, R. L.: Human Sex Anatomy: Topographical Hand Atlas, 854
Dicumarol, Coagulation and Thrombosis, [Shapiro & Weiner] 1217
Diet: See also Food; Nutrition
Story of Nutritional Research: Effect of Some Dietary Factors on Bones and Nervous System, [Mellanby] 1377
Digestion
Handbook of Digestive Diseases, [Kantor & Kasich] 775
Secretory Mechanism of Digestive Glands, [Babkin] 607
Disease: See Pathology; Therapeutics
Dislocations
Fractures and Dislocations in General Practice, [Hosford & Coltart] 936

Book Notices—Continued
Dixon, M., Multi-Enzyme Systems, 403
Doctors: See Physicians
Doerr, R., editor, Die Immunitätsforschung: Ergebnisse und Probleme in Einzeldarstellungen, 147
Doggart, J. H., Ophthalmic Medicine, 212
Doherty, R., Cancer, 1123
Dopsch, H., and Kurtisch, E., Interne Praxis, 1125
Douglas, R. S., I tumori addominali, 1218
Drinking's Not the Problem, [Clapp] 692
Drugs: See Pharmacy
Dry, T. J., and others, Congenital Anomalies of the Heart and Great Vessels, 607
Dubos, R. J., Louis Pasteur, Free Lance of Science, 1527
Dunbar, F., Your Child's Mind and Body: Practical Guide for Parents, 608
Dunlop, D. M., Davidson, L. S. P., and McNee, J. W., editors, Textbook of Medical Treatment, 116
Dunton, W. R., Jr., and Licht, S., editors, Occupational Therapy: Principles and Practice, 1529
Duvall, S. M., 101 Questions to Ask Yourself Before You Marry, 1295
Dysentery, Die Bazillenruhr, [Roemheld] 689
Ear and Temporal Bone, [Bast & Anson] 1219
Eating Together: Cookbook for Diabetics and Their Families, [Macaulay] 776
Economics, Medical
One Half the People: Doctors and the Crisis of World Health, [Wilson] 933
Edsall, F. S., Change of Life: Modern Woman's Guide, 1125
Education: See Nurses and Nursing: Schools, Medical: Students
Eichler, O., Prinzipien des Lebendigen: Eine Studie, 401
Electrocardiography: See Heart
Electroencephalograghy: See Brain
Electron Microscopy: Technique and Applications, [Wyckoff] 607
Electronics: Experimental Techniques, [Elmore & Sands] 1037
Electrotherapy and Light Therapy, [Kovacs] 1037
Elmore, W. C., and Sands, M., Electronics: Experimental Techniques, 1037
Emerson, Haven
Selected Papers of Haven Emerson, 1295
Emotions
Drinking's Not the Problem, [Clapp] 692
Endocrinology: See also Adrenals; Thyroid
Die Erkrankungen der endokrinen Drüsen, [Oswald] 508
Engback, L., Investigations on Course and Localisation of Magnesium Anesthesia: Comparison with Ether Anesthesia, 508
Ennis, L. M., Dental Roentgenology, 608
Enuresis or Bed-Wetting, [Batty] 691
Enzymes
Heavy Metal Prosthetic Groups and Enzyme Action, [Warburg] 854
Multi-Enzyme Systems, [Dixon] 403
Respiratory Enzymes, [Anderson] 853
Eosinophil Count in Health and in Mental Disease, [Rud] 1125
d'Errico, G., La chirurgia delle malformazioni congenite del cuore e dei grossi vasi, 1294
Erythroblastosis, Fetal
Haemolytic Disease of Newborn, [Pickles] 855
Esophagus
Cancer of Esophagus and Gastric Cardia, [Pack] 510
Evans, F. T., editor, Modern Practice in Anesthesia 1949, 506
Exercises
Principles and Practice of Therapeutic Exercises, [Kraus] 1528
Extremities: See also Dislocations; Fractures; Orthopedics
Les arterites des membres, Union international thérapeutique, Paris 1948, 936
Science and Art of Joint Manipulation, [Mennell] 933
Eyes: See Ophthalmology
Famous Men of Medicine, [Chandler] 1456
Farnum, C. G., Medicine Could Be Verse, 1379
Farris, E. J., and Griffith, J. Q., editors, Rat in Laboratory Investigation, 855
Feasby, W. R., Medical Manual, 1379
Ferments: See Enzymes
Fiction: See also Poetry
Diagnosis: Homicide, Casebook of Dr. Coffee, [Blochman] 1294
Medical Meeting, [Walker] 1379
Fischer-Gröbl, M., Klinisch-Chemische Untersuchungsmethoden, 1295
Fitzherbert, F., Acute Appendicitis and its Complications, 690
Flynn, J. E., editor, Blood Clotting and Allied Problems, 1292
Flynn, J. T., Road Ahead: America's Creeping Revolution, 392
Florey, H. W., and others, Antibiotics, 1217
Food: See also Diet; Nutrition; Vitamins
Eating Together: Cookbook for Diabetics and Their Families, [Macaulay] 776
Food Inspection Notes: Handbook for Students, [Hill & Dodsworth] 1293
Foot
Accessory Bones of the Human Foot, [Trolle] 689
Ford, C., How to Guess Your Age, 1292
Foundation: See Rockefeller Foundation
Fractures
Fractures and Dislocation in General Practice, [Hosford & Coltart] 936
Franklin, K. J., Short History of Physiology, 1530
Fulton, J. F., Physiology of the Nervous System, 509
Fungus: See Mycology
Gallbladder
Colecistitis cronicas no calculosas, 936
Lehrbuch der Verdauungskrankheiten, [Henning] 1293
Medical Management of Gastrointestinal Disorders, [Cheney] 1376
Untersuchgen über die Tuberkulose des Dünndarmes, [Böhm] 1531
Genitals
Human Sex Anatomy, Topographical Hand Atlas, [Dickinson] 854
Giles, D., Candle in Her Hand: Story of Nursing Schools of Bellevue Hospital, 146
Gill, R. S., Author Publisher Printer Complex, 1125
Ginsberg, E., Pattern for Hospital Care: Final Report of New York State Hospital Study, 1529
Glover, E., Psycho-Analysis, 1294
Goethe and Pharmacy, [Urdang] 607
Gold, H., Quinidine in Disorders of Heart, 852
Goldberger, E., Unipolar Lead Electrocardiography, 937
Gortner, R. A., Outlines of Biochemistry, 691
Graham, E. A., editor, 1949 Year Book of General Surgery, 856
Greek
Medical Latin and Greek, [Spilman] 211
Green's Manual of Pathology, [Vines] 777
Greene, H. C., trans., Bernard's Introduction to Study of Experimental Medicine, 401
Greenhill, J. P., editor, 1949 Year Book of Obstetrics and Gynecology, 510
Greulich, W. W., and Pyle, S. I., Radiographic Atlas of Skeletal Development of Hand and Wrist, 1124
Growth
Chemistry and Physiology of Growth, [Northrop] 1377
Radiographic Atlas of Skeletal Development of Hand and Wrist, [Greulich & Pyle] 1124
Guthrie, A., and Wakerling, R. K., editors, Vacuum Equipment and Techniques, 777
Guthrie, D., Lord Lister: His Life and Doctrine, 1456
Guyon, R., Sexual Freedom, 1218
Gynecology
Change of Life: Modern Woman's Guide, [Edsall] 1125
Die Gynäklogischen Operationen und ihre topographisch-anatomischen Grundlagen, [Martius] 1530
Diseases of Women, [White & others] 608
Gynecology & Gynecologic Nursing, [Miller & Hyde] 211
1949 Year Book of Gynecology, [Greenhill] 510
György, P., editor, Vitamin Methods, 854
Hall, M. F., Public Health Statistics, 833
Hall, S. B., Psychological Aspects of Clinical Medicine, 936
Hand
Radiographic Atlas of Skeletal Development, [Greulich & Pyle] 1124
Handicapped
Rehabilitation of Handicapped: Bibliography 1940-1946, [Riviere] 1219
Speech Therapy for Physically Handicapped, [Hawk] 1455
Hansel, F. K., Allergy in Relation to Otolaryngology, 1295
Hansen, K., Therapeutische Technik für die Ärztliche Praxis, 934
Harris, R. S., and Thimann, K. V., Vitamins and Hormones: Advances in Research and Applications, 402
Harsh, S. M., and Schrickel, H. G., Personality: Development and Assessment, 853
Harvey, William
Personality of William Harvey, [Keynes] 1529
Hawk, S. S., Speech Therapy for Physically Handicapped, 1455
Head
Acute Injuries of Head, [Rowbotham] 854
Migraine Cervicale (das encephale Syndrom nach Halswirbeltrauma), [Bärtschi-Rochaix] 324
Health
Chicago-Cook County Health Survey, [U. S. Public Health Service] 852
Community Health, [Chenoweth] 1379
Community Health Organization, [Hiscock] 1455
Healthy Babies are Happy Babies, [Kenyon & Russell] 1295
How to Stay Healthy, [Koll] 1294
Health—Continued
Instruction Yearbook, 1949, [Byrd] 692
One Half the People: Doctors and Crisis of World Health, [Wilson] 933
Planning for Health Services: Guide for States and Communities, 1037
Public Health Statistics, [Hall] 833
Heart: See also Cardiovascular Disease
Congenital Anomalies of the Heart and Great Vessels, [Dry & others] 607
Electrocardiography: Fundamentals and Clinical Application, [Wolff] 689
Quinidine in Disorders of Heart, [Gold] 852
Unipolar Lead Electrocardiography, [Goldberger] 937
Hebb, D. O., Organization of Behavior: Neuropsychological Theory, 1123
Hematology: See Blood
Henning, N., Lehrbuch der Verdauungskrankheiten, 1293
Hernia
Synopsis of Hernia, [Iason] 1378
Hicks, S. P., and Warren, S., Introduction to Neuropathology, 1530
Hill, H., and Dodsworth, F., Food Inspection Notes, 1293
Hill, T. J., Textbook of Oral Pathology, 1292
Hiscock, I. V., Community Health Organization, 1455
Histology: See Cytology; Histopathology
Histopathology
Histopathology of Skin, [Lever] 509
Histopathology of Teeth and Their Surrounding Structures, [Kronfeld] 324
Hodges, F. J., and Holt, J. F., 1949 Year Book of Radiology, 506
Hoffmann, E., Ringen um Vollendung: Lebenserinnerungen aus einer Wendezeit der Heilkunde, 1933-1946, 605
Wollen und Schaffen: Lebenserinnerungen aus einer Wendezeit der Heilkunde, 1868-1932, 605
Hollander, J. L., editor, Arthritis and Allied Conditions, 145
Holmes, H. N., General Chemistry, 778
Hormones
Hormones and Vitamins: Advances in Research and Applications, [Harris & Thimann] 402
Hormones in Clinical Practice, [Nieburgs] 778
Recent Progress in Hormone Research: Proceedings of Laurentian Hormone Conference, [Pincus] 401
Hosford, J., and Coltart, W. D., Fractures and Dislocations in General Practice, 936
Hospitals
Better Care in Mental Hospitals, [Blain] 1529
Candle in Her Hand: Story of Nursing Schools of Bellevue Hospital, [Giles] 146
Design and Equipment of Hospitals, [Ward] 855
Hospitalization of the People of Two Counties: Michigan, [Sinai & Paton] 934
Pattern for Hospital Care: Final Report of New York State Hospital Study, [Ginsberg] 1529
How to be Happy Though Young, [Lawton] 1456
How to Guess Your Age, [Ford] 1292
How to Stay Healthy, [Koll] 1294
Hume, C. W., How to Befriend Laboratory Animals, 605
Humor
How to Guess Your Age, [Ford] 1292
Medicine Could be Verse, [Farnum] 1379
Hurst, Sir Arthur
Twentieth Century Physician, 856
Hydrotherapy
Electrotherapy and Light Therapy with Essentials of Hydrotherapy, [Kovacs] 1037
Iason, A. H., Synopsis of Hernia, 1378
Immunity
Die Immunitätsforschung: Ergebnisse und Probleme in Einzeldarstellungen, [Doerr] 147
Industry
Analytical Chemistry of Industrial Poisons, Hazards and Solvents, [Jacob] 775
Industrial Microbiology, [Prescott & Dunn] 507
Occupational Eye Diseases and Injuries, [Minton 1218
Sight, Light and Efficiency, [Weston] 1530
Transactions of Conference on Industrial Wastes: 14th Annual Meeting, 1531
Infants: See also Children
Babe in a House, [Smart] 1379
Haemolytic Disease of the Newborn, [Pickles] 855
Healthy Babies are Happy Babies: Complete Handbook for Modern Mothers, [Kenyon & Russell] 1295
Infection
Oral Bacterial Infection: Diagnosis and Treatment, [Strean] 402
Infectious Disease: See Communicable Diseases
Injuries: See Trauma
Insurance
Conduct of Life Insurance Examinations, [Brockbank] 937

Book Notices—Continued
Internal Medicine
Einführung in die innere Medizin, [Wolf] 692
Interne Praxis: Diagnose, Differentialdiagnose und Therapie, [Dopsch & Kurtisch] 1125
Medizin in Bewegung: Klinische Erkenntnisse und ärztliche Aufgabe, [Siebeck] 1456
Yellow Emperor's Classic of Internal Medicine, [Veith] 509
Interns
A.M.A. Interns' Manual, 1295
Ionization Chambers and Counters, [Rossi & Staub] 325
Iversen, Poul
Papers Dedicated to, on His Sixtieth Birthday, Nov. 20, 1949, 1456
Jacobs, M. B., Analytical Chemistry of Industrial Poisons, Hazards, and Solvents, 775
Johnson, D. M., A Doctor Regrets— Being the First Part of "A Publisher Presents Himself," 1295
Joints: See also Arthritis
Science and Art of Joint Manipulation, [Mennell] 933
Kantor, J. L., and Kasich, A. M., Handbook of Digestive Diseases, 775
Karpman, B., Objective Psychotherapy, 1529
Kelly, F. C., and Hite, K. E., Microbiology, 325
Kenyon, J. H., and Russell, R. K., Healthy Babies are Happy Babies, 1295
Keynes, G., Personality of William Harvey, 1529
Kirchoff, H., Das lange Becken, 145
Kirk, P. L., Quantitative Ultramicroanalysis, 692
Koll, I. S., How to Stay Healthy, 1294
Kolmer, J. A., Clinical Diagnosis by Laboratory Examinations, 935
Koos, E. L., Sociology of the Patient: Textbook for Nurses, 1456
Kornerup, V., [Familial Hypercholesterolemia and Xanthomatosis] 935
Kovacs, R., Electrotherapy and Light Therapy with Essentials of Hydrotherapy and Mechanotherapy, 1037
Kraus, H., Principles and Practice of Therapeutic Exercises, 1528
Kreyberg, L., and others, Medicinske Fremskridt, 608
Kronfeld, R., Histopathology of Teeth and Their Surrounding Structures, 324
Labor: See Obstetrics
Laboratory
Clinical Diagnosis by Laboratory Examination, [Kolmer] 935
Coagulation, Thrombosis and Dicumarol with Appendix on Related Laboratory Procedures, [Shapiro & Weiner] 1217
How to Befriend Laboratory Animals, [Hume] 605
Klinische-Chemische Untersuchungsmethoden, [Fischer-Gröbl] 1295
Laboratory Guide in Chemistry (for Nurses), [Roe] 1530
Manual of Microbiology for Preprofessional Students in Medical Sciences, [Peltier & Lewis] 1219
Rat in Laboratory Investigation, [Farris & Griffith 855
La Cour, A., translator, Development of Tumors in Various Tissues in Mice Following Direct Application of a Carcinogenic Hydrocarbon, 776
Lardy, H. A., editor, Respiratory Enzymes, 853
Latin
Medical Latin and Greek, [Spilman] 211
Latin America
Marihuana in Latin America: Threat it Constitutes, [Wolff] 212
Laurentian Hormone Conference Proceedings, [Pincus] 401
Law
Manual of Pharmaceutical Law, [Pettit] 211
Lawson, A., translator, Heavy Metal Prosthetic Groups and Enzyme Action, 854
Lawton, G., How to be Happy Though Young: Real Problems of Real Young People, 1456
Lectures
American Academy of Orthopaedic Surgeons Instructional Course Lectures, 778
Ledoux-Lebard, R., and Ledoux-Lebard, G. R., Manuel de radiodiagnostic clinique, 608
Lee, C. O., Official Preparations of Pharmacy, 145
Lemberg, R., and Legge, J. W., Hematin Compounds and Bile Pigments, 404
Leprosy
Memoria del V Congreso Internacional de la lepra, Cuba, 1948, 1125
Lever, W. F., Histopathology of Skin, 509
Libraries
Medical Books and Collectors, [Thornton] 1379
Lichtenstein, B. W., Textbook of Neuropathology, 1037
Life
Philosophy of Life, [Bender] 211
Prinzipien des Lebendigen, [Eichler] 401
Lighting
Sight, Light and Efficiency, [Weston] 1530
Linacre Lecture: Personality of William Harvey, [Keynes] 1529
Linksz, A., Physiology of Eye: Volume I: Optics, 1527
Lisbon, Faculté de medecine de Lisbonne, Clinique des maladies pulmonaires, [De Carvalho] 147
Lister, Lord
His Life and Doctrine, [Guthrie] 1456
London, L. S., and Caprio, F. S., Sexual Deviations, 1455
Longmore, R. A., Medical Photography: Radiographic and Clinical, 506
Lungs
Extrapleural Pneumolyse, [Buhl] 606
Faculté de medecine de Lisbonne, Clinique des maladies pulmonaires, [De Carvalho] 147
Lyle, T. K., and Jackson, S., Practical Orthoptics in Treatment of Squint (and Other Anomalies of Binocular Vision), 212
Lyman, R. A., editor, Pharmaceutical Compounding and Dispensing, 853
Macalpine, J. B., Cystoscopy and Urography, 510
Macaulay, C., Eating Together: Cookbook for Diabetics and Their Families, 776
McCrea, L. E., Clinical Cystoscopy, 213
Machover, K., Personality Projection in Drawing of the Human Figure, 692
Mackenzie, C. G., Biological Antioxidants, 1379
McKown, H. C., Boy Grows Up, 778
Magnesium
Investigation on the Course and Localisation of Magnesium Anesthesia, [Engbaek] 508
Malaria
Biography of a Killer, [Warshaw] 1035
Malariology: Comprehensive Survey of All from Global Standpoint, [Boyd] 690
Manipulation
Manipulation and Deep Massage Illustrated, [Cyriax] 1528
Science and Art of Joint Manipulation, [Mennell] 933
Marihuana in Latin America: Threat it Constitutes, [Wolff] 212
Marriage
101 Questions to Ask Yourself Before You Marry, [Duvall] 1295
Marshall, J., Venereal Diseases, 856
Martin, H., Mouth Cancer and the Dentist, 937
Martius, H., Die Gynäkologischen Operationen und ihre topographischanatomischen Grundlagen, 1530
Massage
Deep Massage and Manipulation Illustrated, [Cyriax] 1528
Maternity
Maternity in Great Britain, 763
National Committee on Maternal Health, Human Sex Anatomy: Topographical Hand Atlas, [Dickinson] 854
May's Manual of Diseases of the Eye, [Perera] 213
Mediastinum
I tumori del mediastino, [Anglesio] 1219
Medical Annual: See Yearbook
Medical Clinics on Bone Diseases: Textbook and Atlas, [Snapper] 213
Medical History
First Medical College in Vermont: Castleton 1818-1862, [Waite] 1378
History of Oto-Laryngology, [Stevenson & Guthrie] 506
La craniectoma a traves de los siglos [Vara Lopez] 1531
Short History of Physiology, [Franklin] 1530
Tuberculosis in History from 17th Century to our Own Times, [Cummins] 937
Yellow Emperor's Classic of Internal Medicine, [Veith] 509
Medical Latin and Greek, [Spilman] 211
Medical Management, Handbook of, [Chatton & others] 510
Medical Manual, [Feasby] 1379
Medical Meeting (a novel), [Walker] 1379
Medical Photography: Radiographic and Clinical, [Longmore] 506
Medical Reasearch Council, Nomenclature of Fungi Pathogenic to Man and Animals, 777
Medical Statistics: See Vital Statistics
Medicine: See also Medical History; Physicians; Surgeons; Surgery
Aviation Medicine: Its Theory and Application, [Bergin] 934
Diagnosis, Prevention, and Treatment, [Clark-Kennedy] 146
Einführung in die innere Medizin, [Wolf] 692
Introduction to Study of Experimental Medicine, [Bernard] 401
Medicine Could be Verse, [Farnum] 1379
Medicinske Fremskridt, [Kreyberg & others] 608
1949 Year Book of Medicine, [Beeson] 937
Psychological Aspects of Clinical Medicine, [Hall] 936
Medicine—Continued
Recent Advances in Social Medicine, [Stevenson] 1219
Text-book of Medicine for Nurses, [Chamberlain] 1124
Mellanby, E., Story of Nutritional Research, 1377
Mennell, J., Science and Art of Joint Manipulation, 933
Menopause, Change of Life: Modern Woman's Guide, [Edsall] 1125
Mental Defects
Biology of Mental Defect, [Penrose] 403
Mental Disease
Better Care in Mental Hospitals, [Blain] 1529
Dementia Praecox: Past Decade's Work and Present Status, [Bellak] 1531
Eosinophil Count in Mental Disease; Biometrical Study, [Rud] 1125
Mental Hygiene
Organization of Behavior: Neuropsychological Theory, [Hebb] 1123
Personality Maladjustments and Mental Hygiene, [Wallin] 1036
Metabolism
Les troubles du métabolism de l'eau et des Electrolytes dans le coma diabétique, [Plattner] 147
Metals
Metallurgy and Chemistry of Miscellaneous Materials: Thermodynamics, [Quill] 1219
Microbiology, [Kelly & Hite] 325
Industrial Microbiology, [Prescott & Dunn] 507
Laboratory Manual of Microbiology, [Peltier & Lewis] 1219
Microscopy
Electron Microscopy: Technic and Applications, [Wyckoff] 607
Midwifery: See Obstetrics
Migraine Cervicale (das encephale Syndrom nach Halswirbeltrauma), [Bärtschi-Rochaix] 324
Military: See War
Miller, N. F. and Hyde, B., Gynecology & Gynecologic Nursing, 211
Minton, J., Occupational Eye Diseases and Injuries, 1218
Mitchell, A. V., and Crawford, I. B., Camp Counselling: Illustrated Book of Know-How for the Camp Worker, 778
Mørch, E. T., Anaesthesi, 1124
Moore, M., Clinical Sonnets, 1219
Morals
Sexual Freedom, [Guyon] 1218
More About Psychiatry, [Binger] 145
Morphology
External Morphology of Primate Brain, [Connolly] 775
Mote, J. R., editor, Proceedings of Frst Clinical ACTH Conference, 1378
Mouth, See also Dentistry
Cancer and the Dentist, [Martin] 937
Multi-Enzyme Systems, [Dixon] 403
Muscles
Applied Anatomy and Kinesiology: Mechanism of Muscular Movement, [Rowen] 403
Electromyo-Mechanographic Registrations of Passive Movements, [Broman] 1035
Mycology
Nomenclature of Fungi Pathogenic to Man and Animals, 777
Narcotics
Marihuana in Latin America: Threat it Constitutes, [Wolff] 212
National Cancer Institute, Proceedings of First National Cancer Conference (1949), 777
National Committee on Maternal Health, Human Sex Anatomy: Topographical Hand Atlas, [Dickinson] 854
National Council on Rehabilitation, Rehabilitation of Handicapped: Bibliography 1940-1946, [Riviere] 1219
National Health Assembly, Planning for Health Services, 1037
Nature
Philosophy of Nature, [Schlick] 1217
Nervous System
Story of Nutritional Research, [Mellanby] 1377
Neuroanatomy
Some Trends in Neuroanatomy, [Rasmussen] 1124
Neurology: See also Brain
Clinical Neurology, [Alpers] 1219
Diseases of Nervous System, [Walshe] 212
Organization of Behavior: Neuropsychological Theory, [Hebb] 1123
Physiology of the Nervous System, [Fulton] 509
Neuropathology
Introduction to Neuropathology, [Hicks & Warren] 1530
Textbook of Neuropathology, [Lichtenstein] 1037
Neurosurgery
Diagnosis and Treatment of Brain Tumors and Care of the Neurosurgical Patient, [Sachs] 935
Newton, W. H., Recent Advances in Physiology, 1293

Book Notices—Continued
New York State Hospital Study Final Report: Pattern for Hospital Care, [Ginsberg] 1529
New Zealand, System of Social Security, 776
Nieburgs, H. E., Hormones in Clinical Practice, 778
Nomenclature: See Terminology
Northrop, J. H., and others, Chemistry and Physiology of Growth, 1377
Nose: See Otorhinolaryngology
Novels: See Fiction
Nurses and Nursing
Candle in Her Hand: Story of Nursing Schools of Bellevue Hospital, [Giles] 146
Diseases of Eye, Ear, Nose and Throat, [Seltzer] 1531
Gynecology & Gynecologic Nursing, [Miller & Hyde] 211
Principles of Chemistry: Laboratory Guide in Chemistry, [Roe] 1530
Sociology of the Patient: Textbook for Nurses, [Koos] 1456
Textbook of Medicine for Nurses, [Chamberlain] 1124
Nutrition: See also Diet; Food; Vitamins
Story of Nutritional Research, [Mellanby] 1377
Obstetrics
Das lange Becken: Geburtshilfliche Studie über das Assimilationsbecken, [Kirchhoff] 145
1949 Year Book of Obstetrics, [Greenhill] 510
Occupational Medicine: See Industry
Occupational Therapy: Principles and Practice, [Dunton & Licht] 1529
Office Orthopedics, [Cozen] 1378
One Half the People: Doctors and the Crisis of World Health, [Wilson] 933
101 Questions to Ask Yourself Before You Marry, [Duvall] 1295
Operations: See Surgery
Ophthalmology
Diseases of Eye, Ear, Nose and Throat: Textbook for Nurses, [Seltzer] 1531
May's Manual of the Diseases of the Eye, [Perera] 213
Occupational Eye Diseases and Injuries, [Minton] 1218
Ophthalmic Medicine, [Doggart] 212
Physiology of Eye: Volume I: Optics, [Linksz] 1527
Practical Orthoptics in Treatment of Squint (and Other Anomalies of Binocular Vision), [Lyle & Jackson] 212
Sight, Light and Efficiency, [Weston] 1530
Oral: See Dentistry; Mouth
Orthopedics
American Academy of Orthopaedic Surgeons Instructional Course Lectures, [Blount & Banks] 778
Fractures and Dislocations in General Practice, [Hosford & Coltart] 936
Office Orthopedics, [Cozen] 1378
Science and Art of Joint Manipulation, [Mennell] 933
Orthoptics
Practical Orthoptics in Treatment of Squint, [Lyle & Jackson] 212
Osler, Sir William
Year with Osler, 1896-1897, [Pratt] 1294
Oswald, A., Die Erkrankungen der endokrinen Drüsen, 508
Otolaryngology
Allergy in Relation to Otolaryngology, [Hansel] 1295
History of Oto-Laryngology, [Stevenson & Guthrie] 506
Otorhinolaryngology
Diseases of Eye, Ear, Nose and Throat: Textbook for Nurses, [Seltzer] 1531
Pack, G. T., editor Cancer of Esophagus and Gastric Cardia, 510
Parasitology
Précis de parasitologie, [Brumpt] 606
Paris Journal of Therapeutics, Union internationale thérapeutique, 936
Parpart, A. K., editor, Chemistry and Physiology of Growth, 1377
Pasteur, Louis
Free Lance of Science, [Dubos] 1527
Pathology: See also Histopathology; Neuropathology
Einführung in die pathologische Physiologie, [Bürger] 856
Green's Manual of Pathology, [Vines] 777
Textbook of Oral Pathology, [Hill] 1292
Paul, E., and Paul, C., translators, Sexual Freedom, 1218
Pediatrics: See Children; Infants
Peltier, G. L., and Lewis, K. H., Laboratory Manual of Microbiology, 1219
Pelvis
Das lange Becken: Geburtshilfliche Studie über das Assimilationsbecken, [Kirchhoff] 145
Penicillin
Antibiotics, [Florey] 1217
Penrose, L. S., Biology of Mental Defect, 403
Perera, C. A., May's Manual of Diseases of the Eye, 213
Personality
Development and Assessment, [Harsh & Schrickel] 853
Personality—Continued
Maladjustments and Mental Hygiene, [Wallin] 1036
Projection in Drawing of the Human Figure (Method of Personality Investigation), [Machover] 692
Petrous Bone
Pyramidenerkrankungen: Deren Verhütung und Behandlung, [Voss] 507
Pettit, W., Manual of Pharmaceutical Law, 211
Pharmacy: See also Chemistry
Actions and Uses of Drugs, [Sapeika] 854
Bentley's Text-Book of Pharmaceutics, [Davis & others] 690
British Pharmaceutical Codex, 1949, 508
Fundamentals of Pharmacy, Theoretical and Practical, [Blome & Stocking] 1455
Goethe and Pharmacy, [Urdang] 607
Manual of Pharmaceutical Law, [Pettit] 211
Official Preparations of Pharmacy, [Lee] 145
Pharmaceutical Compounding and Dispensing, Lyman] 853
Pharmaceutical Emulsions and Emulsifying Agents, [Spalton] 508
Text-Book of Pharmaconosy, [Trease] 691
Philosophy of Life, [Bender] 211
Philosophy of Nature, [Schlick] 1217
Photography
Medical Photography: Radiographic and Clinical, [Longmore] 506
Physical Examination
Conduct of Life Insurance Examinations, [Brockbank] 937
Physical Medicine
Electrotherapy and Light Therapy with Essentials of Hydrotherapy and Mechanotherapy, [Kovacs] 1037
Physicians: See also Medicine; Surgeons; Surgery
biographies: A Doctor Regrets—Being the First Part of "A Publisher Presents Himself," [Johnson] 1295
biographies, Famous Men of Medicine, [Chandler] 1456
biographies, Lord Lister: His Life and Doctrine, [Guthrie] 1456
biographies, Louis Pasteur, Free Lance of Science, [Dubos] 1527
biographies, Personality of William Harvey, [Keynes] 1529
biographies, Ringen um Vollendung: Lebenserinnerungen aus einer Wendezeit der Heilkunde, 1933-1946, [Hoffmann] 605
biographies, Twentieth Century Physician: Being the Reminiscences of Sir Arthur Hurst, 856
biographies, Wollen und Schaffen: Lebenserinnerungen aus einer Wendezeit der Heilkunde, 1868-1932, [Hoffmann] 605
biographies: Year with Osler, 1896-1897, [Pratt] 1294
Der Arzt in der Krise der Zeit, [Rom] 404
One Half the People: Doctors and the Crisis of World Health, [Wilson] 933
Physiology: See also Anatomy
Chemistry and Physiology of Growth, [Northrop] 1377
Physiological Basis of Medical Practice, [Best & Taylor] 1294
Physiology of Eye: Volume I: Optics, [Linksz] 1527
Physiology of Nervous System, [Fulton] 509
Recent Advances in Physiology, [Newton] 1293
Short History of Physiology, [Franklin] 1530
Pick, J. F., Surgery of Repair: Principles, Problems, Procedures, 1036
Pickles, M. M., Haemolytic Disease of Newborn, 855
Pincus, G., editor, Recent Progress in Hormone Research, 401
Planning for Health Services: Guide for States and Communities, 1037
Plattner, H. C., Les troubles du Métabolisme de l'eau et des Électrolytes dans le coma diabétique, 147
Plutonium, Transuranium Elements: Research Papers, [Seaborg] 692
Poetry
Clinical Sonnets, [Moore] 1219
Medicine Could be Verse, [Farnum] 1379
Pohle, E. A., editor, Clinical Radiation Therapy, 1528
Pratt, J. H., Year with Osler 1896-1897, 1294
Prescott, S. C., and Dunn, C. G., Industrial Microbiology, 507
Proctology
Treatment in Proctology, [Turell] 147
Professional Schools: See Schools
Psychiatry: See also Mental Disease; Psychology
Applied Psychoanalysis: Selected Objectives of Psychotherapy, [Deutsch] 690
Clinical Sonnets, [Moore] 1219
Modern Practice in Psychological Medicine 1949, [Rees] 1218
Objective Psychotherapy, [Karpman] 1529
Psychiatric Approach to Treatment of Promiscuity, [Safier & others] 935
Psycho-Analysis, [Glover] 1294
Psychoanalysis and Writer, [Bergler] 1379
Varieties of Delinquent Youth: Introduction to Constitutional Psychiatry, [Sheldon] 1218
Psychology: See also Psychiatry
La formación espiritual del individuo: Psicologia, educación, hygiene mental, [Delgado] 856
Modern Practice in Psychological Medicine 1949, [Rees] 1218
Organization of Behavior: Neuropsychological Theory, [Hebb] 1123
Personality Projection in the Drawing of the Human Figure (A Method of Personality Investigation), [Machover] 692
Physiology of Thought: Functional Study of Human Mind in Action, [Bailey] 605
Psychological Aspects of Clinical Medicine, [Hall] 936
Public Health: See Health
Quenu, J., Nouvelle pratique chirurgicale illustree, 1527
Quill, L. L., editor, Chemistry and Metallurgy of Miscellaneous Materials: Thermodynamics, 1219
Quinidine in Disorders of Heart, [Gold] 852
Radioactivity
Transuranium Elements: Research Papers, [Seaborg & others] 692
Radiology: See also Roentgenology
Clinical Radiation Therapy, [Pohle] 1528
Descriptive Atlas of Radiographs, [Bertwistle] 608
Ionization Chambers and Counters: Experimental Techniques, [Rossi & Staub] 325
Manuel de radiodiagnostic clinique, [Ledoux-Lebard] 608
Medical Photography: Radiographic and Clinical, [Longmore] 506
1949 Year Book of, Hodges & Holt] 506
Radiographic Atlas of Skeletal Development of Hand and Wrist, [Greulich & Pyle] 1124
Rask-Nielsen, R., Development of Tumors in Various Tissues in Mice Following Direct Application of a Carcinogenic Hydrocarbon, 776
Rasmussen, A. T., Some Trends in Neuroanatomy, 1124
Rat in Laboratory Investigation, [Farris & Griffith] 855
Rectum: See Proctology
Rees, J. R., editor, Modern Practice in Psychological Medicine 1949, 1218
Rehabilitation of Handicapped: Bibliography 1940-1946, [Riviere] 1219
Respiratory Enzymes, [Anderson] 853
Resuscitation and Anesthesia for Wounded Men: Management of Traumatic Shock, [Beecher] 606
Reticuloendothelial system
I Tumori del sistema reticolo-endoteliale, [Businco] 1378
Rh Factor
Haemolytic Disease of Newborn, [Pickles] 855
Riviere, M., Rehabilitation of Handicapped: Bibliography 1940-1946, 1219
Road Ahead: America's Creeping Revolution, [Flynn] 392
Rockefeller Foundation, International Health Division Annual Report, 1948, 507
Roe, J. H., Principles of Chemistry . . . . for Nurses; Labortory Guide in Chemistry, 1530
Roemheld, L., Die Bazillenruhr, 689
Roentgenology: See also Radiology
Cystoscopy and Urography, [Macalpine] 510
Dental Roentgenology, [Ennis] 608
Untersuchungen über die Tuberkulose des Dünndarmes, [Böhm] 1531
Rohr, K., Das menschliche Knochenmark, 855
Rolnick, H. C., Practice of Urology, 1035
Rom, K., Der Arzt in der Krise der Zeit, 404
Romano, J., editor, Adaptation, 777
Rossi, B. B., and Staub, H. H., Ionization Chambers and Counters: Experimental Techniques, 325
Rowbotham, G. F., Acute Injuries of Head, 854
Royal College of Obstetricians and Gynaecologists, Maternity in Great Britain, 763
Royle, P. E., editor, Kronfeld's Histopathology of Teeth and Their Surrounding Structures, 324
Rud, F., Eosinophil Count in Health and in Mental Disease; Biometrical Study, 1125
Sachs, E., Diagnosis and Treatment of Brain Tumors and Care of Neurosurgical Patient, 935
Safier, B., Fein, E. J., and Bradway, K. P., Psychiatric Approach to the Treatment of Promiscuity, 935
Saint, C. F. M., Introduction to Clinical Surgery, 404
Salter, W. T., Chemical Developments in Thyroidology, 1124
Sapeika, N., Actions and Uses of Drugs for Medical Students and Practitioners, 854
Schlick, M., Philosophy of Nature, 1217
Schools
First Medical College in Vermont: Castleton 1818-1862, [Waite] 1378
Predicting Success in Professional Schools, [Stuit & others] 147
Schrenk, H. H., and others, Air Pollution in Donora, Pa.: Epidemiology of Unusual Smog Episode, 323

Book Notices—Continued
Schudel, L., Leitfaden der Blutmorphologie, 325
Science, Philosophy of Nature, [Schlick] 1217
Seaborg, G. T., and others, editors, Transuranium Elements: Research Papers, 692
Seltzer, A. P., Diseases of Eye, Ear, Nose and Throat: Textbook for Nurses, 1531
Sex: See also Marriage
Essays on Sex, [Young] 607
Human Sex Anatomy, Topographical Hand Atlas, [Dickinson] 854
Normal Sex Interests of Children from Infancy to Childhood, [Strain] 1455
Psychiatric Approach to Treatment of Promiscuity, [Safier & others] 935
Sexual Deviations, [London & Caprio] 1455
Sexual Freedom, [Guyon] 1218
Sexton, W. A., Chemical Constitution and Biological Activity, 691
Shapiro, S., and Weiner, M., Coagulation, Thrombosis, and Dicumarol, 1217
Sheldon, W. H., Varieties of Delinquent Youth: Introduction to Constitutional Psychiatry, 1218
Shock
Resuscitation and Anesthesia for Wounded Men: Management of Traumatic Shock, [Beecher] 606
Siebeck, R., Medizin in Bewegung: Klinische Erkenntnisse und ärztliche Aufgabe, 1456
Sik, L. O., translator, Eosinophil Count in Health and in Mental Disease: Biometrical Study, 1125
Simkins, C. S., Functional Human Anatomy, 605
Sinai, N., and Paton, D. E., Hospitalization of the People of Two Counties: Michigan, 1940-1945, 934
Sindoni, A. M., Diabetic's Handbook: How to Work with Your Doctor; Treatment by Diet and Insulin, 605
Skin: See also Dermatology
Histopathology of Skin, [Lever] 509
Skin Grafting, [Brown & McDowell] 146
Skouby, A., Variations in Aortic Pressure in Dogs During Exercise, 323
Smart, M. S., Babe in a House, 1379
Smog
Air Pollution in Donora, Pa., [Schrenk & others] 323
Snapper, I., Medical Clinics on Bone Diseases, 213
Social Medicine
Der Arzt in der Krise der Zeit, [Rom] 404
Recent Advances in Social Medicine, [Stevenson] 1219
Social Security
Systems of social security, New Zealand, 776
Sociology of the Patient: Textbook for Nurses, [Koos] 1456
Sonnets: See Poetry
Soulas, A., and Mounier-Kuhn, P., Bronchologie: Technique endoscopique et pathologie trachéo-bronchique, 776
Spalton, L. M., Pharmaceutical Emulsions and Emulsifying Agents, 508
Speech Therapy for Physically Handicapped, [Hawk] 1455
Spilman, M., Medical Latin and Greek, 211
Squint: See Ophthalmology
Steroid Hormones and Mammary Cancer, Proceedings of First Conference on, 324
Stevenson, A. C.: Recent Advances in Social Medicine, 1219
Stevenson, R. S., and Guthrie, D., History of Oto-Laryngology, 566
Stomach
Cancer of Esophagus and Gastric Cardia, [Pack] 510
Stories: See Fiction
Strabismus: See Ophthalmology
Strain, F. B., Normal Sex Interests of Children from Infancy to Childhood, 1455
Strean, L. P., Oral Bacterial Infection: Diagnosis and Treatment, 402
Streptomycin
Antibiotics: Survey of Penicillin, Streptomycin, and Other Antimicrobial Substances, 1217
Stroud, W. D., editor, Diagnosis and Treatment of Cardiovascular Disease, 1123
Students
Predicting Success in Professional Schools, [Stuit & others] 147
Stuit, D. B., Dickson, G. S., and Jordan, T. F., Predicting Success in Professional Schools, 147
Success: See Students
Suprarenals: See Adrenals
Surgery
Actualities chirurgicales 1949 [Baÿ] 1528
Advances in Surgery, [Andrus] 1123
Die Gynäkologischen Operationen und ihre topographischanatomischen Grundlagen, [Martius] 1530
Extrapleural Pneumolyse, [Buhl] 606
Introduction to Clinical Surgery, [Saint] 404
La chirurgia delle malformazioni congenite del cuore e dei grossi vasi, [d'Errico] 1294
La craniectomia a traves de los siglos, [Vara Lopez] 1531
Surgery—Continued
Monographs of Surgery, [Nolan] 510
1949 Year Book of General Surgery, [Graham] 856
Nouvelle pratique chirurgicale illustree, [Quenu] 1527
Principles and Practice of Plastic Surgery, [Barsky] 1037
Surgery of Repair: Principles, Problems, Procedures, [Pick] 1036
Textbook of Surgery, [Christopher] 853
Syphilis
Its Course and Management, [Thomas] 1377
Taylor, E. W., Examination of Waters and Water Supplies (Thresh, Beale & Suckling), 776
Teeth: See Dentistry
Temporal Bone and the Ear, [Bast & Anson] 1219
Terminology, Nomenclature of Fungi Pathogenic to Man and Animals, 777
Therapeutics: See also Pharmacy
Handbook of Medical Management, [Chatton & others] 510
Principles and Practice of Therapeutic Exercises, [Kraus] 1528
Textbook of Medical Treatment [Dunlop & others] 146
Therapeutische Technik für die Arztliche Praxis, [Hansen] 934
Treatment in Proctology, [Turell] 147
Union International thérapeutique, Paris, 1948, 936
Thermodynamics
Chemistry and Metallurgy of Miscellaneous Materials, [Quill] 1219
Thomas, E. W., Syphilis: Its Course and Management, 1377
Thorn, G. W., Diagnosis and Treatment of Adrenal Insufficiency, 1292
Thornton, J. L., Medical Books, Libraries and Collectors, 1379
Thrombosis
Coagulation and Dicumarol, [Shapiro & Weiner] 1217
Thyroid
Chemical Developments in Thyroidology, [Salter] 1124
Pathology and Surgery, [DeCourcy] 404
Tissues: See Cytology; Histopathology
Trauma: See also War
Acute Injuries of Head, [Rowbotham] 854
Migraine Cervicale (das encephale Syndrom nach Halswirbeltrauma), [Bärtschi-Rochaix] 324
Occupational Eye Diseases and Injuries, [Minton] 1218
Trease, G. E., Text-Book of Pharmacognosy, 691
Treatment: See Therapeutics
Trolle, D., Accessory Bones of the Human Foot, 689
Tuberculosis
Tuberculosis in History from 17th Century to Our Own Times, [Cummins] 937
Untersuchungen über die Tuberkulose des Dünndarmes, [Böhm] 1531
Tumors: See also Cancer
Diagnosis and Treatment of Brain Tumors and Care of the Neurosurgical Patient, [Sachs] 935
I tumori addominali: Criteri per la diagnosi clinica, [Douglas] 1218
I tumori del mediastino, [Anglesio] 1219
I tumori del sistema reticolo-endoteliale, [Businco] 1378
Turell, R., Treatment in Proctology, 147
Twentieth Century Physician: Being Reminiscences of Sir Arthur Hurst, 856
Uber, F. M., editor, Biophysical Research Methods, 1376
Ultramicroanalysis, Quantitative, [Kirk] 692
United States
Foreign Policy, Major Problems, 1949-1950, 403
Public Health Service, Chicago-Cook County Health Survey, 852
Urdang, G., Goethe and Pharmacy, 607
Urology
Clinical Cystoscopy, [McCrea] 213
Cystoscopy and Urography, [Macalpine] 510
Enuresis or Bed-Wetting, [Batty] 691
Practice of Urology, [Rolnick] 1035
Vacuum Equipment and Techniques, [Guthrie & Wakerling] 777
Vara Lopez, R., La craniectomia a traves de los siglos, 1531
Vaughan, W. T., Primer of Allergy, 852
Veith, I., Yellow Emperor's Classic of Internal Medicine, 509
Venereal Disease: See also Syphilis
Psychiatric Approach to Treatment of Promiscuity, [Safier & others] 935
Venereal Diseases: Manual for Practitioners and Students, [Marshall] 856
Vering, F., Medizinische Chemie, 1294
Vermont
First Medical College in, Castleton 1818-1862, [Waite] 1378
Vines, H. W. C., Green's Manual of Pathology, 777
Vision: See Ophthalmology
Vital Statistics
Public Health Statistics, [Hall] 833
Vital Statistics of United States 1947, 1125
Vitamins
Story of Nutritional Research, [Mellanby] 1377
Vitamins and Hormones: Advances in Research and Applications, [Harris & Thimann] 402
Vitamin Methods, [György] 854
Voss, O., Pyramideneiterungen: Deren Verhütung und Behandlung, 507
Waite, F. C., First Medical College in Vermont: Castleton 1818-1862, 1378
Walker, M., Medical Meeting, 1379
Wallin, J. E. W., Personality Maladjustments and Mental Hygiene, 1036
Walshe, F. M. R., Diseases of the Nervous System, 212
War
Resuscitation and Anesthesia for Wounded Men, [Beecher] 606
Warburg, O., Heavy Metal Prosthetic Groups and Enzyme Action, 854
Ward, R., Design and Equipment of Hospitals, 855
Warshaw, L. J., Malaria: Biography of a Killer, 1035
Warters, J., Achieving Maturity, 1293
Wastes: See Industry
Water
Examination of Waters and Water Supplies (Thresh, Beale & Suckling), [Taylor] 776
Les troubles du métabolisme de l'eau et des Électrolytes dans le coma diabétique, [Plattner] 147
Weston, H. C., Sight, Light and Efficiency, 1530
White, C., Cook, F., and Gilliatt, W., editors, Diseases of Women, 608
Wilson, S. M., One Half the People: Doctors and the Crisis of World Health, 933
Wolf, H. J., Einführung in die innere Medizin, 692
Wolff, L., Electrocardiography: Fundamental and Clinical Application, 689
Wolff, P. O., Marihuana in Latin America: Threat it Constitutes, 212
World Health
One Half the People: Doctors and the Crisis of World Health, [Wilson] 933
Wounded
Resuscitation and Anesthesia for Wounded Men, [Beecher] 606
Wrist
Radiographic Atlas of Skeletal Development, [Greulich & Pyle] 1124
Writer and Psychoanalysis, [Bergler] 1379
Wyckoff, R. W. G., Electron Microscopy: Technique and Applications, 607
Xanthomatosis
Familial Hypercholesterolemia and Xanthomatosis, [Kornerup] 935
Yearbook
Health Instruction Yearbook, 1949, [Byrd] 692
of General Surgery, [Graham] 856
of Medicine (July, 1948-May, 1949), [Beeson] 937
of Obstetrics and Gynecology, [Greenhill] 510
of Radiology, [Hodges & Holt] 506
Young, M. H., editor, Essays on Sex, 607
Your Child's Mind and Body, [Dunbar] 608
Zahle, V., [Acute Carbon Monoxide Poisoning], 508
Zeisz, R. C., and Nuckolls, J., Dental Anatomy, 506
von Zenpelin, A., trans., Philosophy of Nature, 1217

C

CACHEXIA, Bronze: See Hemochromatosis
CADAVER for dissection, where to obtain, 216
CAFERGOT
treatment of migraine, [Fuchs & Blumenthal] *1462
treatment of migraine during menstrual period, 782
CALCIFEROL: See Vitamins D₂
CALCIFICATION: See Lungs
CALCIUM
deficiency, [Youmans] *1254
deficiency, tetany may follow hypermetabolism after thyroid medication, 1197
medication during pregnancy, 408
Pentobarbital: See Pentobarbital
retention of fluorine from bone, [Jackson] 1281—ab
soils and health, [Maynard] *807
spasmophilia and work, 569
thionate in bone and joint tuberculosis, [Santo Tomas Cobos] 1121—ab
CALCULI: See Gallbladder; Kidneys; Prostate
CALIFORNIA: See also San Francisco
cancer detection centers in, [Garland] 680—ab
Institute for Cancer Research grants for cancer research, 1436
University of: See University
CALORIES
diet low in, for patient recovering from coronary thrombosis, 1532
fat and, [Howe] *1339
infant growth under abnormal conditions, Israel, 671

CALORIES—Continued
relation of water retention and diet to body weight, 1381
CAMPS
summer, for diabetic children, Chicago, 189
summer, poliomyelitis in, from one season to another, 1534
CANADA
graduates of medical schools examined for licensure in U. S., *466
National Research Council of, fellowships, 1507
CANCER: See also Epithelioma under name of specific organ or region affected
alkalinity relation to, 1039
cells, discovery in exudates, [Shu Chu Shen] 768—ab
Chorionic: See Chorionic Carcinoma
Clinic: See Cancer control
control, all medical schools participating in teaching program, 1187
control, appraisal of cancer detection centers, [Jones & Cameron] *228
control clinic, Mich., 381
control, course in diagnosis and therapy, California, 663
control, detection centers: experience in California, [Garland] 680—ab
control, graduate training program, 1106
control, high school cancer education program, Mich., 663
control, institutes, Iowa, 1436
control, station wagon given Kentucky Division of American Cancer Society, 1105
Detection Centers: See Cancer control
diagnosis, abrasive balloon for exfoliation of gastric cancer cells, [Panico & others] *1308
diagnosis, A.M.A. resolutions on exfoliative cytologic diagnostic procedure, 1086; 1095
diagnosis, any generally accepted blood test? 1534
diagnosis, beta-glucuronidase studies, [Fishman & others] *350
diagnosis, cytologic, course, Colo., 380
diagnosis, (cytologic) in lungs, [Cierf] 593—ab
diagnosis, cytologic smear technic of maxillary sinus, [Fitz-Hugh] 1281—ab
diagnosis, delay in, [Robbins & others] *346
diagnosis, endocervical curettage, [Pund & Echols] *1226
diagnosis: p_H of spinal fluids in precancerous conditions?, 1039
diagnosis, seminar in exfoliative cytology and diagnosis of cancer, Ga., 1266
diagnosis, thermal coagulation of serum, [Huggins others] *11
diagnostic tests, 657—E
etiology, industrial oils, [Cruickshank] 773—ab
etiology, smegma a carcinogenic agent, [Bleich] *1054
etiology, sunlight and skin carcinogenesis, [Hall] 1022—ab; [Wilson] 1367—ab
etiology, tissue transplant to test materials for carcinogenic action, [Smith] 201—ab
etiology, tobacco smoking [Wynder & Graham] *329; [Levin & others] *336; [Schrek] 498—ab; [Grace] 1446—C
heredity, ovarian cancer in mother and five daughters, Liber 768—ab
Hospital: See also Cancer research; Cancer treatment
hospital (Penrose), seminar at, Colo., 1351
in children: thyroid, [Hare] 1210—ab
incidence, relative frequency of various forms, Norway, 131
metastases from breast after mastectomy, 328
metastases from breast, testosterone for, [Preston] 139—ab
metastases from prostate to bone, [Oelbaum] 1524—ab
mortality from respiratory cancer, 907
Prevention: See Cancer control
research, dedicate Goldblatt Hospital for, Illinois, 752
research (environmental), grants for, 1438
research grants and fellowships available by National Research Council, 1268
research grants by California Institute, 1436
research grants by National Cancer Institute, 1503
research grants, USPHS, 1265
research laboratories, grants for, 903
research lectureship and fellowship, Bertner Foundation, Texas, 1189
research unit, new, Chicago, 904
research, Yale laboratory for, 1105
statistics, urge improvement in, by WHO, 665
symposium, Kentucky, 1352
symposium on gynecologic cancer, Okla., 1506
treatment, betatron, [Schubert] 1374—ab
treatment, delay in, [Robbins & others] *346
treatment, Norwegian Radium Hospital, 757
CANICOLA Fever: See Leptospirosis
CANNED Products for Infants: See Infants, feeding
CAPILLARIES: See also Telangiectasia
resistance, effect of rutin and related flavones (Council report), [Clark & MacKay] *1411
CARBOHYDRATES: See Dextrose; Starch Sugar
CARBOLIC ACID: See Phenol
CARBON: See Charcoal
CARBON TETRACHLORIDE
nephrosis; frequently undiagnosed cause of death, [Farrier & Smith] *965
poisoning, [Norwood] 136—ab; [Sirota] 395—ab
CARBONATED Beverages: See Beverages carbonated
CARBUNCLES: See Furunculosis
CARCINOGENESIS: See Cancer etiology
CARCINOMA: See Cancer
CARDIAC: See Heart
Muscle: See Myocardium
Neurosis: See Asthenia, neurocirculatory
CARDIOLOGY: See Heart
CARDIOVASCULAR DISEASE: See also Blood Vessels; Heart disease
congenital, diagnosis, [Burford] 140—ab
diet effect on diseases of circulatory system, 757
Functional: See Asthenia, neurocirculatory
Hypertensive: See Blood Pressure, High
syphilis, diagnosis, [Peabody] 917—ab
CARDIOVASCULAR SYSTEM: See also Arteries; Blood Vessels; Capillaries; Heart; Vasomotor System; Veins
changes induced by electroshock, [De Bastiani] 1032—ab
complications in hypertension, sympathectomy for, [White & others] 1311
emetine toxic effect on, [Charters] 1372—ab
lesions and ACTH, [Berthrong] 1024—ab
studies in pregnancy after pneumonectomy, [Long & others] *358
CARIBBEAN rabies conference, 1507
CARIES: See Teeth
CARIPITO ITCH
caused by dust from wings of moths, Norway, 131
CAROTID BODY
tumors, [Lewison] 1030—ab
CAROTID SINUS
syndrome, 656—E
CARPUS: See Wrist
CARRIERS: See Diphtheria
CARS: See Automobiles
CASE
Finding: See Cancer control; Tuberculosis, case finding
Records: See Medical Record Librarians
CASEIN, Hydrolysate of: See Amigen; Parenamine
CASUALTIES: See Automobiles, accidents; Korean War
CATARACT
hereditary, [Marner] 1213—ab
treatment, testosterone, [Keyton] 592—ab
treatment, when to operate? 1533
CATHARTICS
in pediatric practice, 1040
laxative and diet in mucous colitis, (reply) [Taubenhaus] 1128
CATHETERIZATION: See Arteries, radial; Heart
CATHETERS
use in cholangiography [Carter & Gillette] *952
CATS
cat scratch disease, adenopathy of unknown origin, 1193
CAVAL VEINS: See Vena Cava
CELLOTHYL
methylcellulose-N.F., N.N.R. (description) 897; (Chilcott; Blue Line) 897
CELLS: See also Cancer cells
Chromaffin: See Pheochromocytoma
histolytic antibiotics, 477—E
inclusion bodies disease, 745—E
inclusion bodies disease, generalized cytomegalic, [Wyatt] 843—ab
CELLULITIS
treatment, aureomycin, [Logan] 837—ab
CELLULOSE
"dope", beer and paralysis, 513
CENSUS: See also Directory
of mental patients, report by National Institute of Mental Health, 662
U. S., unauthorized procedures in interviewing physicians, 560
CEREAL PRODUCTS: See also Rice
Beech Nut Cereal for Babies, 24
CEREBROSPINAL FLUID
p_H of, determination before local anesthetics, 1221
p_H of, in patients with precancerous conditions?, 1039
Hyperalbuminism of: See Guillain-Barré Syndrome
protein in, with radicular symptoms in poliomyelitis, [Neumann] 1525—ab
streptomycin level in tuberculous meningitis, [Hanssen] 1454—ab
tubercle bacillus isolated from, international conference discusses, Paris, 194
CEREBROSPINAL MENINGITIS: See Meningitis, cerebrospinal epidemic
CEREBROSPINAL SYPHILIS: See Neurosyphilis
CEREBRUM: See Brain
CERTIFICATE: See Death Certificate
CERTIFICATION: See American Board; National Board of Medical Examiners; Nutrition
CERVIX: See Uterus
CESAREAN SECTION
in erythroblastosis fetalis, [Hocks] 143—ab; [Klebanow] 143—ab
postmortem, successful, [Walker] 1453—ab
CEVITAMIC ACID: See Acid, ascorbic
of public health nurses, 1503
CHAGAS Disease: See Trypanosomiasis
CHARACTERISTICS: See Personality
CHARCOAL
animal, as substitute for antabuse, [Moench] 683—ab
CHEMICALS
agricultural, hazards from aerial dusting and spraying, 1158—E
introduced in processing of foods, [Bing] 766—ab
Tests: See Medicolegal Abstracts at end of letter M
warfare, protection against A-B-C War, 1013
CHEMISTRY, A.M.A. Council on Pharmacy and Chemistry: See American Medical Association
CHEMOTHERAPY: See also Sulfonamides
pneumonia mortality decreased, Sweden, 488
secondary syndrome, [Suchett-Kaye] 1288—ab
CHEST: See Thorax
CHEWING Tobacco: See Tobacco
CHICAGO
Tumor Institute, gift to, Illinois, 823
CHICKEN: See Eggs
CHICKENPOX
intraoral lesions, treatment, 1534
CHILDBED FEVER: See Puerperal Infection
CHILDBIRTH: See Labor
CHILDREN: See also Families; Infants; Maternity; Pediatrics; under names of specific diseases; Cancer; Diabetes Mellitus; Tuberculosis
Adolescent: See Adolescence
A.M.A. Correlating Committee on Maternal and Child Care, 989
A.M.A. recommends establishing Councils for Child Study, 1184
behavior disorders, prefrontal leukotomy in minors, [Yahn] 1290—ab
boy scout jamboree, 657—E
cathartics in pediatric practice, 1040
Crippled: See Crippled
convulsions (febrile), [Peterman] *728
femoral hernia in boy of 5, [Kazmann & Barnett] *1335
Handicapped: See Handicapped
health, survey of, North Carolina Plan, [London & Davison] *1232
Hospitals for: See Hospitals, children
Midcentury White House Conference on Children and Youth, [Helmholz] *625
retarded, clinic for, N.Y.C., 1352
school, tuberculosis in, Wales, [Jones Davies] 929—ab
sexual activity in boy of 6, 1380
stuttering-problem today, [Karlin] *732
vitamin D requirement, [Jeans] *179
CHILDS (Jane Coffin) Fund: See Foundations
CHILLS
premenstrual, 1127
CHIPMAN, WALTER W., death, 1107
CHIROPRACTORS: See also Medicolegal Abstracts at end of letter M
care of veterans, 659
examined in basic sciences, 1949, *470; (1927-1949) *471
CHLORAMPHENICOL (chloromycetin)
histolytic antibiotics, 477—E
incompatible antibiotics, 816—E
Italian Congress on Antibiotics discuss, 1443
N.N.R., (description) 813; (Parke, Davis) 813
observations on, [Gray] 602—ab
toxicity; cutaneous and mucosal side effects, 1193
treatment of bacillary infections of urinary tract, [Garvey] 683—ab
treatment of Hemophilus influenzae meningitis, [Pratber & Smith] *1405
treatment of herpes zoster, [Bolus] 1029—ab
treatment of nonspecific urethritis, [Chen] 772—ab
treatment of parathyphoid?, 610
treatment of tularemia, [Parker & others] *7
treatment of typhoid, [Benhamou] 1034—ab
treatment of whooping cough, [Macrae] 1031—ab; [Payne] 1452—ab
treatment, oral, of murine typhus, [Ley & others] *217
treatment, oral, of Shigellosis, vs streptomycin, polymyxin B, sulfadiazine, [Ross & others] *1459
CHLORGUANIDE
hydrochloride, N.N.R., (Upjohn) 815
CHLORIDES
in Blood: See Blood
CHLOROETHYLAMINES: See Nitrogen Mustard
CHLOROMYCETIN: See Chloramphenicol
CHLOROQUINE
treatment of Clonorchis infestation, 1297

CHLOROTHEN (tagathen)
antihistaminic drugs for colds, [Hoagland & others] *157
CHOCOLATE Flavored Pudding, Clapp's, 1486
CHOLANGIOGRAPHY: See Biliary Tract roentgen study
CHOLECYSTECTOMY: See Gallbladder surgery
CHOLELITHIASIS: See Gallbladder calculi
CHOLERA
outbreak in India, 383
spread by pilgrimages, World Health Assembly studies, 666
CHOLESTEATOMA: See Epidermoid
CHOLESTEROL
atherosclerosis; dietary hypercholesteremia and alloxan diabetes, [Adams] 198—C
atherosclerosis; number and size of chylomicrons in plasma, 1344—E
atherosclerosis vs. hyperplastic arteriosclerosis, [Moschcowitz] *861
calculi in gallbladder, 406
coronary thrombosis and, [Morrison] 494—ab
diet low in, for patient recovering from coronary thrombosis? 1532
in Blood: See Blood cholesterol
metabolism and arteriosclerosis, [Katz] 1448—ab
CHOLINE
bicarbonate, N.N.R., (description) 814; (Commercial Solvents) 815
dihydrogen citrate, N.N.R., (U. S. Vitamin Corp.) 815
lipotropic agent in coronary atherosclerosis, [Morrison] 683—ab
treatment of diabetes, [Pelner & Waldman] 1017—C
CHONDRODYSTROPHY: See Lipochondrodystrophy
CHONDROSTEOBLASTOMA
benign, [Copello] 505—ab
CHOREA
diagnosis (differential) 1380
treatment (newest) 1039
CHORIONIC CARCINOMA, 658—E
CHORIONIC GONADOTROPINS: See Gonadotropins
CHROMAFFIN Cell Tumor: See Pheochromocytoma
CHROMHIDROSIS: See Sweat
CHRONICALLY Ill: See Disease, chronic
CHRYSOTHERAPY: See Gold treatment
CHURCH: See Clergymen
CHYLOMICRONS
number and size in plasma in atherosclerosis, 1344—E
CHYLOTHORAX
traumatic, [Goorwitch] 201—ab
CIGARETS; Cigars, Smoking: See Tobacco
CIRCULATION: See Blood circulation
CIRCULATION: See Journals
CIRCULATORY Failure: See Heart insufficiency
CIRCUMCISION
prophylaxis of penile cancer, [Bleich] *1054
CIRRHOSIS: See Liver cirrhosis
CITIZENS
Committee for Hoover Report (opposes Truman's Reorganization Plan) 747; (drive for United Medical Administration) 1264
health committees, complete organization, Ky., 823
health planning committee, W. Va., 1353
physicians as, 1404—ab
CIVIL AERONAUTICS ADMINISTRATION
recommend procedures to protect personnel in spraying insecticides, 1159—E
CIVILIAN DEFENSE
aid, hospitals and doctors organize for, N.Y.C., 1352
A.M.A. Council on National Emergency Medical Service confers with military representatives, 1347
A.M.A. resolution on effective program, 982; 1098
burn problem in atomic warfare, [Evans] *1143
civilian responsibility, 556—E
military coordination, 1347
National Security Resources Board, 1419
Office of, Committee survey on blood banks, 1078
system, physicians prepare, Wis., 1438
CIVIL SERVICE: See United States
CLAPP'S PRODUCTS
Junior Foods: peaches, vegetables with lamb, strained pineapple pudding, 24
Junior Foods: apricots and apples, 1415
Junior Foods: chocolate flavored pudding; pineapple pudding; vegetables with beef, rice and barley, 1486
strained foods: vegetables, 970
CLAUDICATION, INTERMITTENT, 695
treatment: walking more slowly; knee held straight, [Naide] *968
CLAVICLE
pain in arm from mechanisms in costoclavicular space, [Stammers] 1289—ab
tuberculous abscess involving soft tissue above left clavicle, 858
CLAY
ingestion by pregnant women, [Ferguson] 1208—ab
CLEANING: See Dry Cleaning
CLERGYMEN
institute of ministry to sick at Johns Hopkins Hospital, 1437
CLEVELAND
Clinical Session: See American Medical Association
Health Museum, Dr. Stecher president, 824
CLIMACTERIC: See Menopause
CLIMATE: See also Arctic; Tropics
warm, basal metabolic rate in, 942
CLIMATIC BUBO: See Lymphogranuloma, Venereal
CLINE, JOHN W.
A.M.A. president-elect, (portrait; biographical sketch) 900—E; (address) 1116
CLINICAL Pathology: See Pathology
Thermometer: See Thermometer
CLINICS: See Cancer; Children, retarded; Epilepsy; Handicapped; Heart
CLONORCHIASIS
treatment: methylrosaniline chloride; chloroquine, 1297
CLOSTRIDIUM
toxin, identification in intestinal obstruction, [Anderson 317—ab
CLOTTING: See Blood coagulation; Thrombophlebitis
CLOVER, Preparation Prepared from Spoiled Sweet Clover: See Dicumarol
COAGULATION: See Blood coagulation
COAL MINERS: See Miners
COAL OIL: See Kerosene
COBIONE
N.N.R., (description) 1342; (Merck) 1342
COCCI
penicillin-resistant pathogenic, [Berger] 210—ab
COCCIDIOIDOMYCOSIS, [Bass] *1041
diagnosis, hazard involved, [Looney] 599—ab
COD LIVER OIL
injection for retinitis pigmentosa, [Saltzman] 839—ab
CODE of Ethics: See Ethics, Medical
COITUS: See also Contraception; Impotence; Spermatozoa
after vasectomy, 860
infantile uterus associated with vaginismus, 1534
intercourse without sensation, 611
psychosomatic aspects of frigidity, [Kroger & Freed] *526; [Markowitz; Exner] 1514—C
sex ability following orchiectomy, 514
COLD: See also Arctic; Refrigeration
Agglutinins: See Agglutinins, hemagglutination
Anesthesia: See Anesthesia
cutis marmorata, 695
exposure to, and effects of ascorbic acid, [Therien] 318—ab
Wave: See Hair
COLDS: See also Cough; Hay Fever
treatment, antihistamines, [Hoagland & others] *157; 478; [Shaw] 1368—ab
premenstrual symptoms, 1221
treatment, antihistamines, advertising, 744—E
treatment, antihistamines and ascorbic acid, [Cowan & Diehl] *421
treatment, antihistamines, Erie County Medical Society postcard survey, [Arbesman] 198—C
COLDSORE: See Herpes simplex
COLITIS
amebic, aureomycin for, [McVay] 1284—ab; [Bordes] 1215—ab
amebic, bacitracin for, [Most & others] *792
amebic dysentery, 695
mucous, treatment: diet and laxative (reply) [Taubenhaus] 1128
ulcerative, anal fistula complicating, 781
ulcerative chronic, p-nitrosulfathiazole (nisulfazole), N.N.R., (description) 1155; (Breon) 1155
ulcerative, surgical treatment, [Brown] 1367—ab
COLLAPSE: See Shock
Therapy: See Pneumothorax, Artificial; Tuberculosis of Lung
COLLEGE: See University
Education: See Education, Medical premedical
Medical: See Schools, Medical
of Physicians, Surgeons, etc.: See list of Societies at end of letter S
Students: See Students
COLLES' Fracture: See Radius
COLLINS Foundation: See Foundations
COLOMBIAN
Conference on Radiology (1st), 672
COLON: See also Colitis; Colostomy
cancer of right side, hemicolectomy for, (film review) 571
megacolon, Hirschsprung's disease, [Bodian] 321—ab
megacolon, Hirschsprung's disease, abdominal sigmoid-rectum resection, [Smith] 1122—ab
megacolon (congenital), resect dilated segment, [Ritter] 1522—ab
vagotomy effect on, [Grace] 202—ab
COLON BACILLUS: See Escherichia coli
COLOR: See also Dyes; Stain
decoloration of hair after taking resorcinol, sulfur or mercury, 779
effect on health, 694
COLORADO Rheumatic Fever Library, 1266
COLORIMETRIC
test for alcohol, 1126
COLOSTOMY
bag, disposable, [Gladstone & Turell] *894
COMEDOS
cause; treatment, 150
COMMISSION
Joint Commission for Improvement of Care of Patient, 1506
on Chronic Illness, 983
COMMISSIONS
ethics of, 153—ab; 1320—ab
COMMISSUROTOMY: See Mitral Valve
COMMITTEE: See also under list of Societies and Other Organizations at end of letter S
A.M.A.: See American Medical Association
for Improvement of Child Health of American Academy of Pediatrics, [London & Davison] *1232
on Problems of Alcohol, National Research Council, 666
COMMUNICABLE DISEASES: See also Epidemics
Center, (Atlanta) 187; (midwestern) 662
report, U.S. 485; 564; 754
COMMUNIST PARTY
affiliation of Association of Internes and Medical Students, Council report, 992
COMPENSATION: See Income
for Injuries: See Workmen's Compensation
of Physicians: See Fees
COMPLEMENT
fixation test in virus and Rickettsial diseases, [Milzer] *221
COMPOUND A: See Dehydrocorticosterone
E: See Cortisone
F: See Hydroxycorticosterone
S: See Desoxycortisone
COMPULSORY Health Insurance: See Insurance, sickness
CONCEPTION: See Impregnation; Pregnancy; Sterility
Control of: See Contraception
CONDOM
sperm counts; use of condom for collection of semen, 857
CONDUCT: See Behavior; Ethics, Medical
CONFERENCE: See also under list of societies at end of letter S
General Conference on Voluntary Health Insurance, San Francisco Session, 989; 991
on gonorrhea by Paris Fournier Institute, 911
on Records and Statistics, 903
on water pollution by U.S.P.H.S., 562
Regional: See American Medical Association
CONFIDENTIAL COMMUNICATIONS: See Privileged Communications
CONGRESS: See also International Congress; National Congress; list of Societies at end of letter S
on Aerosol Therapy, Italy, 311
U.S., Legislation Considered by: See Laws and Legislation, federal
CONJUNCTIVA
subconjunctival injection of penicillin for corneal ulcer, [Sorsby] 503—ab
CONJUNCTIVITIS: See also Keratoconjunctivitis
chronic, treatment, 1382
Granular: See Trachoma
inclusion, laboratory tests in, [Milzer] *219
infectious acute, in newborn; penicillin-silver nitrate also sulfathiazole prophylaxis, [Gleich & Watts] *635; [Lehrfeld] 1360—C
treatment, sodium propionate, [Theodore] *226
CONSTITUTION: See also Personality; Psychosomatic Medicine
inferiority in neurocirculatory asthenia, [Vergara] 673—C
CONSULTANTS to the Army: See Army, U.S.
CONSUMERS PRICE INDEX
medical care prices vs. cost of living, [Dickinson] *1198; 1160—E
CONTAGION: See Infection
CONTAGIOUS DISEASE: See Infectious Diseases
CONTEST: See Prizes
CONTINUATION Courses: See Education, Medical, graduate
CONTRACEPTION
Cooper Latex Diaphragm, 555
CONTRACTS: See Medicolegal Abstracts at end of letter M
CONTRACTURE
Dupuytren's, 695; [Bode] 1373—ab
CONVALESCENCE: See also Rehabilitation
hospitals for, statistics, *32
inguinal hernia: delayed versus early ambulation, [Preston] 499—ab
CONVENTION, A.M.A.: See American Medical Association, annual session

CONVULSIONS: See also Eclampsia; Epilepsy
febrile, in children, [Peterman] *726
Therapeutic: See also Electric shock treatment
therapeutic, indications for, [Leme Lopes] 400—ab
COOPER Latex Diaphragm, 555
COOPERATIVE
medical facilities, 301
CORAMINE: See Nikethamide
CORNEA
abscess, treatment suggested, 1532
Inflammation: See Keratitis; Keratoconjunctivitis
surgery, results of keratoplasty, [Roberts] 1020—ab
ulcers, chronic intermittent, 328
ulcers (infected), subconjunctival injection of penicillin, [Sorsby] 503—ab
CORONARY
Arteries: See Arteries
Arteriosclerosis: See Arteriosclerosis
Thrombosis: See Thrombosis, coronary
CORONER: See Medical Examiner
CORPORATIONS: See Medicolegal Abstracts at end of letter M
CORPSE: See Cadavers
CORPUS CALLOSUM
section in experimental epilepsy, [Kopeloff] *1449—ab
CORPUS LUTEUM Hormone: See Progesterone
CORTICOSTERONE: See Desoxycorticosterone
CORTIN
treatment of poliomyelitis, [Binet] 861—ab
CORTISONE (Compound E)
effect on anaphylactoid reaction, [Selye] 318—ab
exhibit on, New York City, 664
physiologic effects, [Sprague] 594—ab
supply, statement by Merck & Co., [Carlisle] 831—C
synthesized from bile steroids, 1380
treatment compared with certain steroids and adrenal cortical extracts, [Polley & Mason] *1474
treatment, course in, Chicago, 1188
treatment of psoriasis, 1222
treatment plus ACTH of lupus erythematosus, [Baehr] 1118—ab
treatment plus ACTH of rheumatic fever, [McEwen] 1118—ab
CORYZA: See Colds
COSMETICS
danger from swallowing nail polish remover, 941
Hair Preparations: See Hair
COSTS: See Economics, Medical
COUGH: See also Colds; Whooping Cough
coughing up semihard pellets of white pearly substance, 1382
COUMARIN: See Dicumarol
COUNCIL: See also under specific names as National Research Council; National Safety Council
A.M.A.: See American Medical Association
for Coordination of International Congresses of Medical Sciences, 1111
COUNTY
Health Dept., Unit: See Health
Society: See Societies, Medical; list of Societies at end of letter S
COURSES: See Education, Medical
COURT Decision: See Medical Jurisprudence
COW'S Milk: See Milk
COXSACKIE DISEASE, 972—E; 1004
CRAMPS: See also Spasm
Menstrual: See Dysmenorrhea
nocturnal, and vomiting of pregnancy, 938
CRANIUM: See also Brain; Head
in oxycephaly, [Bodian] *15
trauma, manipulation of carotid arteries in first aid for, [Kranenburg] 603—ab
tumors, histiocytic granuloma [Goodhill] 770—ab
tumors, osteoma in occipital regions, 513
CRAW UNIT
of veratrum viride, 1221
CRESOLS
value in tuberculosis hospitals, [Oatway] 761—C
CRETINISM
endemic, iodine deficiency, [Youmans] *1256
CRIME: See Medicolegal Abstracts at end of letter M
CRIMINAL Abortion: See Abortion
CRIMINALS: See Impostors
CRIMINOLOGY
International Congress of (2nd), 1272
CRIPPLED: See also Handicapped; Poliomyelitis
National Society for Crippled Children and Adults, (social work consultant: Mrs. Pragoff) 1353
CROHN'S DISEASE: See Ileitis
CRYMO Anesthesia: See Anesthesia, refrigeration
CRYPTOCOCCOSIS (torulosis)
bone infection in, [Collins] 495—ab
CRYPTORCHISM: See Testis undescended
CRYSTALLINE LENS: See Lens, Crystalline
CULTS: See also Chiropractors; Osteopaths
A.M.A. resolution on pilot survey of practitioners of so-called healing arts; 1079; 1098
applicants examined in basic sciences, 1949, *470; (1927-1949) *471
CULTURE: See Brucellosis; Influenza, virus; Rickettsia
CURARE: See also *d*-Tubocurarine
prophylaxis in electroshock treatment, [Flordh] 1033—ab
treatment of multiple sclerosis, [Schumacher] *1248
treatment of poliomyelitis, [Bower] 1020—ab
CURETTEMENT
technic for biopsy, [Traenkle & Burke] *429
CURRAN Lecture: See Lectures
CUTIS marmorata, 695
CYSTEINE
irradiation prophylaxis with, 817—E
sulfhydryl compounds and experimental diabetes, 1416—E
CYSTOSCOPY: See Medicolegal Abstracts at end of letter M
CYSTS: See also under specific organ and region
alum, after triple immunizations, 1380
Sebaceous: See Steatoma
CYTOCHROME C
treatment in multiple sclerosis, [Schumacher] *1246
CYTOLOGY: See also Cells
A.M.A. resolution on exfoliative cytologic diagnostic procedure, 1086; 1095
Smear: See Cancer diagnosis
CYTOMYCOSIS, reticulo-endothelial: See Histoplasmosis

D

DCA: See Desoxycorticosterone acetate
DHE-45: See Dihydroergotamine
D. P.'s: See Displaced Persons
DA COSTA Syndrome: See Asthenia, neurocirculatory
DAIRY PRODUCTS: See Milk
DALACTUM, 1415
DARLING'S Disease: See Histoplasmosis
DARVISUL (phenosulfazole)
in acute poliomyelitis, [Fox & Hornberger] *535
DEAD Bodies: See Cadavers
DEAFNESS: See also Hearing
employment of hard of hearing, 191
endolymphatic hydrops without vertigo, [Williams] 1279—ab
etiology: allergy, [Jordan] 924—ab
etiology, hazards of intense sound and ultrasound, [Davis] 136—ab
National Hearing Week, 119—E
Nerve: See Otosclerosis
Treatment: See Hearing Aids
DEATH: See also Cadavers; Medical Examiner; Murder; Suicide
bed pan deaths, [McGuire] 496—ab
Cause of: See also Automobiles, accidents; under names of specific diseases, conditions and substances
cause of, after operation for congenital heart disease, [Bahnson] 502—ab
cause of, angiocardiography, [Dotter] 1284—ab
cause of, arteriography in acute gangrene, [Joyeux] 1291—ab
cause of, in decompression chambers, [Haymaker] 597—ab
cause of, in narcotic addict: due to abrupt withdrawal or large dose of morphine? 405—ab
cause of, study attempted suicides with poison, Oslo, 1273
certificate, biased medical certificate, Norway, 1273
euthanasia, World Medical Association resolution opposing, 561—OS
of Fetus: See Fetus, death of
of Physicians: See list of Deaths at end of letter D
Postmortem Delivery: See Cesarean Section, postmortem
Rate: See Vital Statistics
sudden, inheritance of factor causing, [Leys] 1211—ab
DECIDUA: See Endometrium
DECIDUOMA malignum: See Chorionic Carcinoma
DECUBITUS, angina pectoris in patient during: recumbent position, [Soloff] *225 [Brunn] 1513—C
DEERFLY Fever: See Tularemia
DEFECTS: See Abnormalities; Handicapped; Mental Deficiency
DEFENSE: See also Civilian Defense; Medical Preparedness
Department, report of, 185
DEFICIENCY DISEASE: See also Beriberi; Nutrition deficiency; Pellagra; Rickets; Vitamins deficiencies
pathology, 1358
DEFINITION: See Terminology
DEGENERATION: See also Myocardium
changes in children with diabetes, 817—E
DEHYDROCORTICOSTERONE
treatment of rheumatoid arthritis, [Polley & Mason] *1476; *1477
DELIVERY: See Labor
Post Mortem: See Cesarean Section, postmortem
DEMENTIA PRECOX
treatment, insulin coma; spontaneous hypoglycemia and diabetes after, [McGrath] 930—ab
DEMEROL: See Meperidine
DEMOCRACY
American way of living, 118—E
DENTAL Caries: See Teeth caries
DENTISTRY: See also Gums; Teeth
dental care of veteran, [Kracke] *1330
public spending for dentists under National Health Insurance, England, 310; [Martin & others] *1431
DENTURES: See Teeth, artificial
DEOXYCORTONE: See Desoxycortone
DERMATITIS: See also Urticaria
Industrial: See Industrial Dermatoses
autosensitization, 1380
exfoliativa, from dilantin, [Chaiken] 1446—C
exfoliativa, from phenobarbital, [Welton] *232
in soldiers during World War II, 438
Iodoacetic acid cause of, [Marriott] 761—C
Poison Ivy: See Rhus
DERMATOLOGY: See also Skin; under names of specific skin diseases
Metropolitan Dermatological Society of Chicago organized, 380
DERMATOMYOSITIS
treatment, ACTH, [Oppel] 837—ab
DERMATOPHYTOSIS: See also Tinea
treatment, penicillin contraindicated, 512
DERMATOPOLYNEURITIS: See Erythredema
DERMATOSIS: See Industrial Dermatoses; Skin disease
DESENSITIZATION: See Allergy
DESERT FEVER: See Coccidioidomycosis
DESOXYCORTICOSTERONE
acetate and ascorbic acid injections in rheumatoid arthritis, [Kling] *791
acetate and methylene blue in rheumatoid arthritis, [Hallberg] 930—ab
acetate, intraoral, in Addison's disease, [Anderson] 139—ab
acetate treatment of rheumatoid arthritis, [Polley & Mason] *1477
acetate with or without sodium chloride, orally in pink disease, [Cheek] 1212—ab
differentiation from cortisone, 1380
renal and adrenal mechanisms of salt conservation, 1059—ab
DESOXYCORTISONE
toxicity: hypertension and hyalinosis, [Selye] 685—ab
treatment of rheumatoid arthritis, [Polley & Mason] *1476
DESOXYCORTONE
treatment plus ascorbic acid in rheumatoid arthritis, [Le Vay] 602—ab; [Kersley] 1372—ab; [Currie] 1372—ab
treatment plus ascorbic acid vs. ACTH in rheumatoid arthritis, [Spies] 208—ab
21-DESOXY-11-DEHYDROCORTICOSTERONE
treatment of rheumatoid arthritis, [Polley & Mason] *1477
DeVILBISS Pocket Atomizer No. 33, 181
Steam Vaporizer, No. 149, 1487
DEXTROSE
parenteral nutrition with amino acids, alcohol and, [Rice] 920—ab
DIABETES, BRONZE: See Hemochromatosis
DIABETES MELLITUS
American Diabetes Association, (new headquarters) 754; (DIABETES—GUIDEBOOK FOR PHYSICIANS) 1200
A.M.A. resolution on early detection, 1084; 1095
atherosclerosis; dietary hypercholesteremia and diabetic rabbit, [Adams] 198—C
clinical conference on, A.M.A. San Francisco Session, 273
complications: cerebrovascular changes [DeJong] 923—ab
complications: coronary infarct, 612
complications, late, [Lundbaek] 1216—ab
complications: myasthenia gravis, [Perry] *1332
complications: neuritis, 857
complications: neuropathy, numbness of both feet, 1458
complications: pregnancy, [Andersson] 1291—ab; 1346—E
complications: pruritic rash, 781
degenerative changes in children, 817—E
Diet in: See Diabetes Mellitus, treatment
etiology: insulin coma for schizophrenia, [McGrath] 930—ab
etiology: liver dysfunctions, [Pelner & Waldman] 1017—C; [Leevy] 1020—ab
experimental, and sulfhydryl compounds, 1416—E
familial distribution, [Harris] 1370—ab
in children, phleboretinopathia tarda in, [Jensen] 1216—ab

DIABETES MELLITUS—Continued
in children, summer camp, Chicago, 189
treatment, choline, [Peiner & Waldman] 1017—C
treatment, Diet-Delight Brand Canned fruit, 439
treatment, diet, statement from American Diabetes Association, 1200
treatment, use of panteric? 327
DIAGNOSIS: See also under names of specific diseases
Atlanta multiphasic screening program for 6 diseases, Ga., 189
Case Finding: See Case Finding (cross reference)
center opened by New York City Department of Health, 1505
laboratory, U.S.P.H.S. course, 1265
pathergic illness, 1015; 1196
thermal coagulation of serum in, [Huggins & others] *11
DIANETICS, 1220
DIAPHRAGM
flutter, [Senter & others] *174
Hernia of: See Hernia, diaphragmatic
DIAPHRAGMS, Contraceptive: See Contraception
DIARRHEA: See also Dysentery
infectious, inapparent Salmonella infections in hospitals, [Felsen & others] *1135
late, after vagotomy, [Thurnher] 210—ab
manifestation of myocardium infarction, [Adams] 840—ab
DIASONE SODIUM
N.N.R., (description) 1259; (Abbott) 1259
DIASTEMATOMYELIA, [Neuhauser] 1523—ab
DIATHERMY
increasing secretion of breast milk, 512
DICOUMARIN: See Dicumarol
DICTION: See Terminology
DICUMAROL
treatment, effectiveness, [Duff] 1278—ab
treatment in pregnant patient, [Adamson] 918—ab
treatment, long term, to prevent recurrent coronary thrombosis, [Nichol] 1450—ab
treatment of heart failure, [Harvey] 771—ab
treatment, postoperative prophylaxis, [Rehn] 1290—ab
treatment of thromboembolic complications of myocardial infarction, [Schilling] *785
treatment of venous thrombosis and pulmonary embolism, [Vander Veer] 836—ab
treatment to prevent recurrent embolism of intracardiac origin, [Cosgriff] *870
treatment to prevent venous thrombosis in women, [Smith] 1285—ab
vascular injury caused by, rutin to prevent, [Maris] 1291—ab
Vitamin K and, [Miller] 771—ab
DIENESTROL, N.N.R., (Bio-Ramo) 815
DIET: See also Food; Nutrition
Calories in: See Calories
clay and laundry starch ingested by pregnant women, [Ferguson] 1208—ab
coronary thrombosis, patient's diet low in cholesterol and calories, 1532
Deficiency: See Nutrition
dental caries in cotton rat on human diet, [Zepplin] 923—ab
Diabetic: See Diabetes Mellitus, treatment
Diet-Delight Brand Canned Fruit, 439
effect on diseases of circulatory system, Norway, 757
Infant's: See Infants feeding
Protein in: See Protein
Salt Free: See Salt
treatment of tuberculosis, [Sandler] 1205—ab
Vitamins in: See Vitamins
water retention and diet in relation to body weight, 1381
DIETHYLSTILBESTROL
dipropionate in oil, N.N.R., (Blue Line) 970
treatment of mumps orchitis, [Norton] *172
treatment plus orchiectomy for prostate cancer, [Nesbit & Baum] *1317
DIGESTION
Society of Pathology of, Spain, 758
DIGESTIVE SYSTEM: See also under various organs involved
bacterial synthesis of vitamin B_{12} in, [Dyke] 1212—ab
DIGITALIS
toxicity: nodal tachycardia after overdosage, [Stellar] 1278—ab
toxicity; poisoning, [Burwell] 1448—ab
DIGITOXIN
toxicity: ventricular tachycardia with peripheral vascular collapse, [Fremont & King] *1052
DIHYDROCORTISONE ACETATE
treatment of rheumatoid arthritis, [Polley & Mason] *1477
DIHYDROERGOTAMINE (DHE-45)
treatment of migraine, [Fuchs & Blumenthal] *1462
treatment of postlumbar puncture headache, [Caldwell] 684—ab
DIHYDROSTREPTOMYCIN
N.N.R., (description) 896; (Abbott; Bio-Ramo; Lilly; Merck; Merrell; Pfizer; Premo), 896
neurotoxic reactions to, [Carr & others] *1223
DILANTIN Sodium: See Diphenylhydantoin Sodium
DIMENHYDRINATE (dramamine)
N.N.R., (description) 815; (Searle) 815
treatment of migraine, [Brentan] 928—ab
DIMERCAPTOPROPANOL: See BAL
DIMETHYLAMINOBENZENE (butter yellow) dyestuffs used in foods, 1127
DIMETHYL-TUBOCURARINE IODIDE (metubine iodide)
N.N.R., (Lilly) 815
DINITROPHENOL
to be abandoned as reducing agent, 609
DIONE: See Trimethadione
DIPHENHYDRAMINE HYDROCHLORIDE (Benadryl)
toxicity: anemia, [Crumbley] *726
DIPHENYLHYDANTOIN SODIUM (phenytoin sodium; dilantin sodium)
toxicity: hepatitis and jaundice with pyrexia and exfoliative dermatitis, [Chaiken] 1446—C
toxicity: hypertrophy of gums, 1298
DIPHTHERIA
carriers, penicillin treatment, [Öberg] 603—ab
antitoxin given before receipt of laboratory reports, 407
paralysis, intraspinal injection of toxoid for, [Thiele] 1121—ab
prevention: phosphate toxoid in, [Noordam] 505—ab
Schick reactions (false positive), [Hahn] 132—C
subacute bacterial endocarditis due to, [Almkvist] 926—ab
toxoid, aluminium hydroxide adsorbed, N.N.R., (description) 241; (Cutter) 241
toxoid and pertussis vaccine combined, aluminium hydroxide adsorbed, N.N.R., (description) 813; (Cutter) 813
toxoid and pertussis vaccine combined (diptussis), N.N.R., (Cutter) 813
toxoid and pertussis vaccine combined, encephalopathy after, [Anderson] 1212—ab
toxoid and tetanus toxoid, aluminum hydroxide adsorbed, N.N.R., (description); (Cutter) 241
toxoid and tetanus toxoid with pertussis vaccine, abscess after injection, 1222
toxoid and tetanus toxoid with pertussis vaccine combined, aluminium hydroxide adsorbed, N.N.R., (description) 813; (Cutter) 813
toxoid, use of procaine hydrochloride with, 696
treatment, penicillin, [Bruyn] 1363—ab
DIPLOMYCIN, new antibiotic, [Viking] 400—ab
DIRECTORY
American Medical Directory, 1950, 243—E; 479
of Health and Recreation Agencies, Kentucky, 563
of Medical Illustrators, by Association of Medical Illustrators, 382
of Psychiatric Facilities in Illinois, 124
DIRT: See Clay; Dust; Soil
DISABILITY: See Accidents; Blindness; Handicapped
Chronically Ill: See Disease
Industrial: See Workmen's Compensation
Insurance: See Insurance
Rehabilitation after: See Rehabilitation
DISASTER
relief planned by state society, Pa., 1006
DISCOVERIES: See Patents
DISEASE: See also Death; Health; Pathology; Patients; under names of specific diseases
carriers: See Diphtheria
cat scratch, adenopathy of unknown origin, 1193
chronic, A.M.A. Committee on, report, 1075
chronic, Commission on, San Francisco Session, 983
Chronic Disease Research Institute, New York, 563
chronic, division of U.S.P.H.S., 1263
chronic, National Association on Chronic Illness, report on, 565
Communicable: See Communicable Diseases
Convalescence: See Convalescence
Diagnosis of: See Diagnosis
Epidemics: See Epidemics
Hazard: See Industrial Diseases
Industrial: See Industrial Diseases
Mental: See Mental Disorders
Nomenclature: See Terminology
Occupational: See Industrial Diseases
of Old Age: See Old Age
Physical-Mental Relationship: See Psychosomatic Medicine
Rate: See Vital Statistics
Sickness Insurance: See Insurance, sickness
Spread of: See Epidemics
Treatment: See Hospitals; Therapeutics
Tropical: See Tropical Disease
DISINFECTION: See also Antiseptics
of skin with ethyl alcohol; also value of cresols in tuberculosis hospitals, [Oatway] 761—C
DISLOCATION: See Hip
DISPLACED PERSONS
A.M.A. Committee on Displaced Physicians, 980; 1088
resettlement of displaced physician in U.S., [Burgess] *413
situation of physicians in Israel, 1358
DISSECTION
where to obtain cadaver for, 216
DISTINGUISHED Service Medal: See Prizes
DIURETICS
thiomerin or mercuhydrin, 1298
DIVERTICULUM: See Intestines
DIVORCES
declining, 485
DIZZINESS: See Vertigo
DOCTORS: See Physicians
DOGS: See Rabies
DOLANTIN: See Meperidine
DONATIONS: See Fellowships; Foundations; Hospitals; Library; Prizes; Research grants; Scholarships
DONORS: See Blood Transfusion
DONOVAN BODIES: See Granuloma inguinale
DRACUNCULOSIS (Guinea worm infection), 1039
DRAFT: See Medical Preparedness
DRAMAMINE: See Dimenhydrinate
DRAWING: See Art
DRINKING: See Alcoholism
DRIVING: See Automobiles
DROPSY: See Ascites
DRUGLESS Healers: See Cults
DRUGS: See also under names of specific drugs
Addiction: See also Barbiturates; Morphine
addiction, 973—E
addiction, defined by WHO committee, 973—E
Anesthetic: See Anesthesia
pharmacology of placebos, [Wolf] 596—ab
Pharmacopeial: See Pharmacopeia
Prescriptions: See Prescriptions
prices of vs. cost of living, 1160—E; [Dickinson] *1198
read the labels, 899—E
samples, discarded, [Carson] 198—C; [Howe] 1114—C (suggested use for) [Frack] 1360—C
Therapeutic Use: See Chemotherapy; Therapeutics; under names of specific diseases
DRUNKENNESS: See Alcoholism; Medicolegal Abstracts at end of letter M
DRY CLEANING
carbon tetrachloride nephrosis, cause of death, [Farrier & Smith] *965
toxic products used in, cause hypertension and acute nephritis? 1220
DUBB, PEHR, bicentenary, 1112
DUCTLESS Glands: See Endocrine Glands
DUCTUS ARTERIOSUS
patent; murmurs in congenital heart disease, 695
patent, rupture of pulmonary aneurysm in 67 year old woman, [Lindert & Correll] *888
patent, surgical treatment for, (film review) 832
DUODENAL TUBE
Brucella abortus cultured from duodenal fluid, [de Langen] 1374—ab
surgical removal of swallowed Miller-Abbott tube, [Hanselman & Theis] *551
DUODENUM
gastric mucosa prolapse into, 1359
surgery, treatment of stump in gastric resection, 1196
Ulcer: See Peptic Ulcer
DUPUYTREN'S Contracture: See Contracture
DUST
Disease from Inhaling: See Pneumonoconiosis
porcelain, cancer of bladder with metastasis in lungs, 1297
wood, as cause of asthma, [Ordman] 399—ab
DYES: See also Hair; Methylene Blue; Stain used in foods, 1127
DYSENTERY: See also Diarrhea
Amebic: See Colitis, amebic
Salmonella infections in hospitals, [Felsen & others] *1135
Shigella, chloramphenicol orally vs. streptomycin, polymyxin B, sulfadiazine, [Ross & others] *1459; (also aureomycin, footnote no. 4) *1460
syndrome in childhood, Congress of Pediatrics discuss, Italy, 129
DYSGERMINOMA
seminoma of ovary, [Mathieu] 931—ab
DYSMENORRHEA, 693
treatment, methyl testosterone, [Filler] *1235
DYSPLASIA, Fibrous: See Bones
DYSPNEA: See Asthma
DYSTROPHY: See also Lipochondystrophy
Muscular: See also Myasthenia Gravis
Muscular Dystrophy Association seeks research funds, N.Y., 1189

DEATHS

A

Adams, Dallas Hilliard, 192
Adams, Lewis Nelson, 755
Adams, Melvin L., 1009
Adams, Ralph Crawe, 667
Ahlborn, Maurice Bertram, 667
Ajemian, Leon M., 1270
Albright, William John, 1191
Alderman, Ernest Hamlin, 1509
Allison, Harold T., 1009
Alston, Eugene Ellis, 127
Anday, Kadri Rashid, 670
Anderson, Charles Franklin, 308
Anderson, James Burns, 909
Anderson, James Kerr, 127
Anderson, Leslie Percival, 1270
Anderson, William, 384
Andrews, Charles James, 1356
Andries, Joseph H., 667
Angeny, Granville Louis, 1009
Apfel, Sidney Kenneth, 909
Armsbury, Aaron Benjamin, 755
Arnold, Clarence Robert, 755
Arnold, Duma Carroll, 1509
Arntsen, Lester Leloid, 1009
Ash, Samuel, 909
Ashbrook, William Allen, 192
Atkinson, Daniel Armstrong Jr., 1356
Atlee, John Light, 486
Auerbach, Johann Gottfried, 755
Austin, Dixon Lawrence, 1009
Austin, William Sidney, 384
Axilbund, Samuel, 826
Ayer, Silas Hibbard, 1270

B

Bailey, Ezekiel McCord, 566
Bailey, Walter Thomas, 384
Baker, William Boyd, 486
Bamber, James Monroe, 192
Bancroft, Edward Erastus, 755
Barclay, Samuel, 486
Barkley, Claud Douglas, 486
Barnes, Charles Wesley, 1009
Barr, Daniel Randolph, 1009
Barr, Frederick Greiner, 1010
Barrow, William Hulbert, 667
Bartlett, Edith V., 127
Bartlett, Willard, 127
Barton, William R., 1191
Bashinski, Benjamin, 1509
Basinger, Harvey Levi, 1509
Bauch, Solomon Stan, 1356
Bauer, Frederick, 909
Bauerberg, Paul John, 192
Baumhauer, Charles Andrew, 909
Bay, William Frederick, 1356
Beal, Edward L., 384
Beam, Hugh Martin, 1442
Beam, Watson W., 667
Bean, Harold Cotton, 1191
Beard, Joseph Howard, 384
Beaton, Lindsay Alexander, 667
Beck, Henry Martin, 1191
Beers, Lila Eliza, 566
Beers, Nathan Thomas, 1441
Bentley, John A., 384
Berard, Henry William, 909
Berg, Albert Ashton, 1441
Berry, David Franklin, 384
Betz, William Henry, 486
Bicak, Joseph Francis, 308
Bingham, William Otto, 1442
Black, Hugh Snoddy, 1010
Blackman, W. Wilbur, 1509
Blatz, Valentin, 1442
Blue, Arthur B., 566
Blunden, Joseph Emil, 1509
Board, Milton, 667
Boehringer, Herman Winfield, 667
Bogard, R. C., 667
Bogart, Clarence Nall, 1010
Bolduan, Charles Frederick, 1509
Boling, Tyler Robert, 1509
Bonaviez, Katherine Eliza Kinsey, 1010
Bond, John Harvey, 667
Bone, Merle, 909
Booher, Irvin Edwin, 384
Boone, William Roscoe, 384
Bossard, Harry Bardwell, 667
Bost, James Robert, 192
Bower, Jacob, 1356
Bowers, Bert Alfred, 1509
Bowman, Hugh Edgar, 909
Boyd, Francis Peter, 1010
Boyer, Robert, 667
Boyle, Henry Bernard, 308
Boyle, Hugh Cotter, 667
Brandenburg, Nora Florence Brodboll, 909
Branton, Berton J., 1010
Brasil, Vital, 1016
Brazda, Daniel Steven, 1270
Briglia, Frank Joseph, 384
Brinson, Ed Lane, 1010
Brinson, William David, 667
Brown, Clarence Frank Gunsaulus, 909
Brown, Edwin, 667
Brown, Henry Renick, 486
Brown, James Millington, 384
Brown, Richard Ambrose, 1191
Brubaker, Elber Robert, 667
Brundage, Carl Langley, 1356
Bruorton, Oscar Lucas, 667
Bryson, Samuel Z., 755
Buchanan, James Arthur, 667
Buckley, Charles Eugene, 1191
Buesser, Frederick G., 1509
Bullock, Charles Thomas, 127
Burgher, Arthur Ernest, 667
Burlingame, Clarence Charles (see Burlingame, C. Charles)
Burlingame, C. Charles, 1441
Burns, Robert Francis, 1010
Burrow, Trigant, 1010
Burson, Henry Clay, 308
Burt, Charles Thomas, 1442
Burwell, Edmund Strudwick, 308
Buxman, Herman, 755
Butchart, Thomas R., 566

C

Caddell, Stephen W., 1270
Cade, Charles Craig, 667
Cain, Milton, 192
Caldwell, Joseph Davis, 667
Cameron, William John, 1191
Campbell, Claude Melnotte, 909
Campbell, John Lee, 1442
Cannon, Martin Loeb, 1356
Cantwell, James L., 192
Cardle, Archibald Evans, 1442
Carlson, Benjamin, 1442
Carlton, Leland Francis, 1270
Carr, Andrew Morton Jr., 384
Carr, Clarence Thomas, 384
Carr, William John, 1010
Carter, Paul Conway, 667
Casteel, Lewis Ryley, 668
Cathey, George Andrew, 192
Cerasa, Nunzio Tom, 826
Chalker, James LeRoy, 1108
Chaloupka, John Godfry, 384
Chamberlin, Harrie H., 192
Chapman, Ottis Peyton, 1010
Chapman, Willis Earle, 755
Chase, Gilman Leeds, 566
Chiles, Joseph B., 1191
Chitwood, John Randolph, 1108
Cirino, Joseph W., 1010
Clair, Eli Carl, 909
Clair, Frank Fenton, 192
Cleveland, Joseph Dewey, 668
Clifford, Paul Mather, 127
Clough, Osgood Flint, 1108
Cloyd, Augustus Davis, 1442
Coen, James Randolph, 1509
Coffey, James Ryle, 384
Cohen, Hyman, 1271
Cohen, Sidney Joseph, 1108
Cole, Charles F., 668
Cole, Fern Morton, 308
Collier, William Dean, 192
Collins, Joseph, 1108
Conley, George J., 1010
Conrad, Belle H., 1442
Corley, Homer S., 1191
Cornwell, Nelson L., 826
Coutard, Henri, 384
Covell, Henry Hallam, 384
Cowern, Ernest William, 1271
Cox, Ernest Fleetwood, 909
Cox, Lafayette Thomas, 308
Craig, Albert Ege, 1108
Craighead, Joseph Wiley, 1191
Crescenzi, Thomas Louis, 1442
Crimmin, Leo Philip, 1442
Cronin, Joseph Michael, 1191
Crouch, J. Frank, 668
Crow, Ira Nelson, 1108
Crowley, James Hollis, 486
Crutchfield, Carl Robert, 1191
Culbert, Robert Ronayne, 384
Cummings, Robert Newton, 668

D

Da Costa, A. Antonio, 668
Daley, Robert Morris, 1108
Daniel, Charles Howard, 909
Davis, Dudley F., 1108
Davis, George Harrison, 1109
Dean, George R., 192
Decker, Eleanor Hutchinson (see Hutchinson, Eleanor McNair)
Dedolph, Karl, 1271
Deffenbaugh, Martin Henry, 192
Denby, John Peter, 385
Denton, James Way, 1270
DePuy, Clarence Augustus, 309
Deuel, Jacob Bettinger, 1108
Deutsch, Joseph, 487
Dever, DeWitt Clarence, 385
Dick, John Frederick, 1356
Dick, Neely Edgar, 1271
Dickie, Herbert Grasty, 1442
Diederich, Victor Peter, 1509
Dieterle, John Otto, 566
Dietz, Frank J., 1356
Divine, Alice, 1356
Dobyns, Gypsie Junius, 668
Dolley, Homer Odell, 385
Donahue, Julia Maude, 1509
Donnell, Robert Newton, 909
Donohue, Bartholomew Francis, 1108
Douglas, Paul Lowell, 385
Douglas, Robert James, 1271
Dower, Clancy Melvin, 1509
Drew, Charles Richard, 127
Duncan, Ernest Allen, 1356
Duncan, John Henry, 385
Dunlap, William Verner, 1271
Dunn, James Frederick, 826
Dunn, Miriam Frances, 1108
Dunn, Richard Henry, 909
Dunne, Gerald Peter, 1191
Dutton, Richard, 309
Dwyer, William, 1442

E

Edwards, David Henry, 909
Edwards, Edward Emlin, 668
Ehlers, Charles William, 1191
Ehlers, Frederick Ferdinand, 309
Eising, Eugene Harold, 385
Elder, Roy Porter, 1356
Ellithorp, Robert Lincoln, 826
Elmer, Edward Oliver, 487
Emerson, Charles C., 487
Emery, William Franklin, 1356
Emmerson, William Stanford, 668
English, Chester Ferrin, 1356
Ensign, Duane Edwin, 1356
Enzor, Roscoe Hinson, 668
Epperson, Egbert Ernest, 668
Eshbaugh, Aaron S., 909
Espenlaub, George Henry, 1356
Evans, Albert Henry, 385
Evans, Robert L., 909
Ewing, Elizabeth Learoyd 1108

F

Farbar, Marian Eleanor, 826
Farmer, Joseph Arthur, 1356
Farson, John Pickering, 1108
Fay, Ella Chaffee, 1509
Federn, Paul, 755
Fensenfeld, Arthur Louis, 385
Feltwell, Myrtle R., 1356
Fenn, Joseph Wallace, 1356
Fenske, Hugo Oscar, 668
Field, Everett Howard, 1356
Findley, Joseph Dysart, 566
Finn, James Jay, 909
Fishbaugh, Preston Wiley, 487
Fisher, H. Ward, 385
Fisher, Pierre James, 192
Fitzgerald, Guy Harlan, 668
Flater, Nathaniel Frank, 127
Fleming, Thomas F., 826
Fletcher, Carlton Cole, 1509
Foldes, Desider, 385
Forsythe, Hugh, 909
Foster, William Charles, 566
Foulon, Irenaeus Lister, 668
Fountain, Edwin Ray, 1191
Fowler, Millard M., 1010
Fox, Lorah O., 1356
Franck, William L., 668
Frank, Austin Cleals, 1109
Frank, Philip, 826
Frazer, Jewett Hunter, 1010
Free, John Edward, 1191
Freeman, Wiley Howell, 1109
Fridy, Cyrus Ward, 1191
Friedenwald, Harry, 486
Friedman, Philip Jacques, 1010
Frisbie, Charles Biglow, 487
Fuhrer, John Earl, 1010
Fuller, Enoch Leon, 1357
Fulwider, Robert Miller, 909

G

Gabriel, Arthur Morris, 385
Gantt, Allen Gilbert, 487
Garlitz, Arnold William, 385
Garner, Albert Rowland, 668
Garrett-Bangsberg, Sarah L., 487
Gaston, Mary Adelaide (see Macleod, Mary Adelaide Gaston)
Gates, John Lee, 1271
Gathings, Robert Oscar, 1010
Gaugh, William H., 309
Geer, Everett Kinne, 1441
Gerdine, John, 1509
Gervers, John Henry Richard, 755
Gibson, John J., 487
Gilbert, Judson Bennett, 1357
Gillespie, Clement Paul, 1191
Gillespie, William John, 909
Ginsburg, Irving, 826
Givens, Emory Marion, 668
Glenn, Joseph Marion, 909
Glidden, Edson W., 826
Goddard, Anthony Marvin, 1357
Goepp, Rudolph Max, 826
Going, Joseph Gary, 826
Goltry, Charles Fitzgerald, 487
Gordon, Isaac Louis, 1357
Gore, Michael Alvord, 755
Gosian, Moses, 668
Goss, Charles, 755
Gowen, Francis Vincent, 1191
Gradle, Harry Searls, 566
Graening, Charles H., 1191
Grayson, Stewart Maxwell, 826
Greeley, Horace, 1109
Green, Albert F., 1191
Green, Frank Bernard, 668
Grenolds, Walter James, 127
Griffin, Donald Carr, 1509
Griffin, Robert Bailey, 668
Griffis, George C., 826
Griggs, Earl Elmo, 1271
Grindon, Joseph Sr., 308
Gross, Frederick William, 127
Grover, Frederic Lloyd, 487
Grover, Glenn Goodwin, 1109
Gruhler, Christian, 193
Gueffroy, Herman August, 909
Guess, James Edward, 668
Guile, Earl B., 193
Guillot, Clarance Alexandre, 309
Guttery, Edwin George, 1010

H

Hafford, Wilbur Claire, 487
Hagan, Zeffa Carl, 385
Hager, Christian, 826
Hagyard, Charlton Edward, 668
Hakansson, Erik Gosta, 1270
Halberstam, Charles Abraham, 1109
Halfman, Walter E., 1109
Hall, John Ewell, 193
Hall, Neal, 668
Halsey, Richard Charles, 566
Hamilton, Fred C., 1010
Hamilton, Simion Milo, 910
Hanan, James Taylor, 755
Hangarter, Andrew Henry, 309
Hanna, Benjamin M., 1442
Hanna, Samuel C., 1109
Hannum, Frank Walter, 756
Hanson, William Thomas, 755
Harbitz, Francis, 131
Harlow, George Arthur, 1191
Harned, Henry S., 668
Harney, James Barker, 1010
Harpel, Kate Stevens, 1109
Harper, Howard Cyrus, 385
Harris, Roland Charles, 756
Harsha, Charles Lloyd, 487
Hart, Henry D., 756
Harter, James Watt, 1271
Hartley, Clarence A. Sr., 486
Hartmann, Carl Floyd, 385
Haskell, Edward Earle, 127
Hassig, John Franklin, 486
Hastings, Kent Kane, 668
Hatz, Bernard, 910
Havely, John Minor, 668
Hawkins, Ernest Hazelius, 193
Haworth, Dale Emmett, 826
Hayhurst, Joseph Owen, 826
Hayhurst, Wendell Owen, 1109
Haynie, William R., 385
Head, Joseph, 1109
Healy, Maurice Arthur, 1109
Heaston, William C., 385
Heinze, Charles Frederick, 668
Heitman, Jefferson Henry, 668
Heitmuller, George Henry, 756
Heller, Edwin Harry, 566
Helmus, Wilbur Frederick, 309
Hendershott, Roy Wheeler, 1442
Henderson, George Dallas, 1357
Hendricks, Elliott Miley, 486
Henske, Andrew Clemens, 1509
Hepler, Charles Verne, 827
Herr, Edward Albert, 385
Hess, George, 909
Heuler, Leo, 910
Higgins, Frank Albert, 309
Hill, Earl Vernon, 756
Hill, James Charlesworth, 827
Hill, Trouse A., 827
Hilling, James Riley, 1442
Hines, Frank Brown, 668
Hires, Nathaniel Stretcher, 487
Hirsch, Marcus, 827
Hitt, James P., 487
Hodge, Emory King, 1109
Hodgson, William Henry, 1357
Hoel, Kenneth Paul, 1357
Holcombe, Luman Clayton, 668
Holson, James Butler, 1109
Holt, Kerchival Rogers, 1271
Hombach, William Peter, 487

Deaths—Continued
Hood, M. Bowman, 1109
Hooper, John L., 567
Hopkins, Clarence W., 308
Hopper, Magnus Tate, 756
Hornaday, Walter Adam, 193
Horning, Fred Forest, 193
Hosmer, Andrew Jackson, 567
Howard, John Rudolph, 756
Howell, Jesse Lee, 827
Howland, Frank Alvin, 1271
Howley, Clarence Payne, 385
Howser, D. Dick, 127
Huber, Frederick William, 567
Hudston, Ranulph, 756
Huether, Archibald Leslie, 755
Hughart, John Ewing, 487
Hughes, Fred T., 385
Hughes, Frederic John, 1357
Hull, Marion McHenry, 567
Hunt, Westley Marshall, 1356
Huntington, Herbert Arthur, 127
Huston, John Walter, 1357
Hutchings, Byron Merle, 487
Hutchins, Wiley Paremore, 668
Hutchinson, Eleanor McNair Decker, 486
Hutchison, Owen Ghormley, 910
Hutton, Willis A., 1510
Hyde, John Fay, 487

I

Ill, Edmund Waldemar, 193
Ingalls, Stanley Stuart, 193
Ivy, John Bill, 567

J

Jackson, Harry Demuth, 487
Jackson, Leila DeEtte, 1191
Jacob, Rudolph Daniel Milton, 566
James, Dorrence Stanton, 1191
Jantzen, Francis Thomas, 1357
Jarrell, Foster, 1357
Jelks, Edwin Lankin, 1271
Jenkins, Benjamin Duane, 1109
Jenkins, Park B., 128
Jenney, Charles Maxwell, 1271
Jerger, Joseph Ambrose, 1357
Joblin, Walter R., 1270
Johnson, Charles Harcourt, 193
Johnson, Ishmael W., 487
Johnson, William David, 1108
Johnston, George Coffin, 1108
Johnston, Hardee, 910
Johnston, Joseph Elton, 128
Johnstone, William Arthur, 193
Jones, Allen Arthur, 1356
Jones, Clem H., 487
Jones, Harold Eldred, 1357
Jones, Hunter Carr, 128
Jones, James Jesse, 1271
Jones, Robert LeRoy, 1191
Jordan, Fletcher, 1010
Jordan, Henry W., 1010
Juergens, Caroline Smith Carr, 128

K

Kachline, John Charles, 309
Karpeles, Simon Rufus, 128
Kastenbaum, Charles C., 1191
Katz, Michael, 1510
Kayser, Reuben, 567
Keen, Glover Thomas, 1357
Kell, Thomas Banks, 1442
Kelleam, Edwin Ayres, 668
Kelley, Jacob Sleeper, 385
Kelly, James Francis, 827
Kendig, Evert, 826
Kenney, John Francis, 384
Kenton, Forest Reese, 1357
Kerper, Alver Hubert, 193
Kerr, Homer Lanson, 1357
Kessler, John Donovan, 567
Kielhorn, Walter Paul, 910
Kilbourn, Kenneth E., 567
Kilpatrick, Lewis Alexander, 668
Kimbley, Howard Gilbert, 1109
Kincaid, John Herbert, 910
Kincheloe, Charles Fuller, 1509
King, Henry Eugene, 1191
King, Isaac Newton, 1510
Kistler, John Dengler, 1010
Kittle, Richard, 487
Kleinhans, Paul Howard, 487
Knapp, George Leonard, 1010
Knauer, Charles Hull, 193
Knighton, Joseph Edward, 385
Knipe, Alden Arthur, 1191
Koch, John A., 756
Kopecky, Louis Alfred, 567
Kopfstein, Frank Theodore, 910
Kracke, Roy Rachford, 1270
Krebs, Frank J. V., 128
Kuhn, Benjamin Franklin, 385
Kuraner, Heinz, 1109
Kyselka, Harry Bohumil, 1271

L

Ladd, Fred Gaius, 193
Lamb, Harvey Densmore, 668
Lamme, Stephen Julian, 1271
Lancefield, Kenneth Parker, 385
Langsdale, Guy H., 756
Lanich, Lloyd Jackson, 1510
Lantz, James Morris, 1010
Larochelle, Joseph Eugene, 487
Larsson, Johan Gustave, 668
Latz, Peter J., 385
Lavinder, Claude Hervey, 756
Lavoie, Zenon Annable, 1271
Law, Thomas F., 1357
Lawrence, Charles W., 1191
Lawrence, Edward King, 487
Lazarus, Bernard, 1191
Leatherman, Kate Wissler, 1010
Ledwidge, Patrick Liam, 826
Leeper, William Clyde, 1191
Leevack, Robert, 1191
Lemmer, George N., 756
Leonard, Edward Aloysius, 1191
Leonard, Eugene Thomas, 910
Leonard, Frederick C., 1510
Leverty, Charles Joseph, 385
Levinson, Julian David, 827
Levy, Joseph G., 1109
Lewin, Alfred, 128
Lewis, James R., 1192
Lewis, John Saunders Jr., 1109
Libby, Mildred Augusta, 827
Liddell, Elbert Beecher, 1192
Lightfoot, Grace Kathryn, 1109
Lightle, William E., 1109
Lilly, John Gill, 309
Linn, Harry Preston, 668
Liston, Joseph Bostick, 128
Little, Rolla Ernest, 385
Little, Wilbur Grant, 827
Lockwood, John Salem, 1108
Logie, H. Burton, 1354
Lohr, Floyd D., 128
Long, Raymond Garfield, 1192
Looze, John Joseph, 567
Lore, Harry Elmer, 756
Lowe, James Theodore, 1510
Lowenstein, Hans Jacob, 756
Lucas, George Maurice, 668
Ludeau, Jules Ernest, 668
Lund, Fred Bates, 1441
Lutz, Elmer Harry, 1192
Lyle, Urban Adino, 1271

M

Mable, Lot Dalbert, 1192
McAulay, Marion Brooks, 1510
McCall, Thomas Edgar, 309
McCarty, Claude E., 1109
McCarty, Elba Denton, 668
McCarty, Ray Bardwell, 384
McCune, Scott Scowcroft, 1442
McDill, John Eldon, 1510
Macaulay, Joseph Arthur, 309
Machler, F. Patrick, 827
Mackey, Abner, 1510
Macleod, Mary Adelaide Gaston, 1357
McCord, Frank Everett, 669
McCorkle, William Pyles Jr., 1109
McDaniel, Edward Bruce, 756
McDevitt, Charles Joseph, 1109
McDonald, John David, 1192
McDonald, Josiah G., 385
McGee, Edward Roderick Benedict, 1109
McGeehan, Stanley Martin, 910
McGillivray, Donald Edward, 1010
McGraw, Harriet Goodman Kurtz, 1192
McGregor, Addley Harrison, 193
McGuire, James Anthony, 669
McHenry, Rupert Kingsley, 309
McInnis, William R., 1192
McIntosh, William Page, 669
McKee, John Sasser, 669
McKenna, Donald Esterbrook, 1191
McKillip, Burlin George, 1192
McLeod, Mary Adelaide Gaston (see Macleod, Mary Adelaide Gaston)
McLoughlin, Frances Lillian Raberge, 567
McMahon, Gerald Hastings, 487
McMahon, Michael Francis E., 1510
McMahon, W. S., 309
McMahon, William Thomas, 567
McManus, Matthew Patrick, 669
McNeile, Olga, 385
McNevins, John Alphonsus, 1192
McPherson, A. B., 1192
McRae, Donald Murdoch, 193
McVay, Frederick Roy, 669
Madden, Alvin C., 1271
Madden, William Daniel, 1192
Maddox, William Hedrick, 1510
Maiello, Luigi, 1010
Maisch, Arthur F., 128
Mallory, Frank Nicholson, 827
Malloy, Thomas Edwin, 827
Mann, David Meade, 193
Markham, Convas Lane, 193
Marks, Charles Hale, 827
Marlette, George Clark, 669
Marmillion, Matthew Jackson, 193
Marquand, Edgar Ulysses, 1192
Marriott, Lora Larason, 385
Marrs, William T., 1192
Marsh, Howard LaRue, 1192
Marsh, Otto George, 193
Martin, John Russell, 669
Martin, John William, 1010
Masse, Mathilde Marie, 193
Masslow, William C., 1192
Massy, Harvey Edwin, 193
Mast, Esther Ellen Maurer (see Maurer-Mast, Esther Ellen)
Matthews, Justus Abner, 1108
Matthews, J. D. Frederick, 827
Mattison, Edward Rochelle, 669
Mauer-Mast, Esther Ellen, 193
Maupin, Clinton Miller, 756
Maxwell, Leslie Howe, 1510
Maxwell, Thomas Rhea, 128
Mayberry, Irwin William, 669
Mayhew, Charles Holmes, 1510
Meacham, Cowan Cameron, 669
Mease, William Harvey, 193
Meier, Duane Alba, 669
Meinhardt, Charles, 1192
Melody, William P., 910
Mengel, Sterling Frederic, 1109
Mesmer, John M., 1109
Metscher, Alfred John, 385
Meyer, Adolf, 192
Meyer, Albert Joseph, 669
Meyer, Otto, 1192
Michael, Lawrence Frank, 193
Michaux, David Marion, 1192
Miles, Isabel A., 1010
Miller, Andrew D., 309
Miller, Daniel William, 487
Miller, Howard Coombs, 1010
Miller, Lawrence Delano, 385
Miner, James La Salle, 1510
Minford, Wilbur H., 193
Misischia, Cosmo, 193
Mitterling, Stephen, 308
Moke, William Theodore, 385
Molina, Alfonso Quinonesy, 825
Monroe, John Patrick, 128
Moore, Frederick Benjamin, 309
Moran, Thomas Anthony, 1109
Morris, William Sherman, 309
Morrison, David A., 567
Moschkowitz, Hermann, 1010
Moses, Chester Davis, 128
Moutoux, Joseph E., 193
Mundy, William Nelson III, 1510
Murphy, Amos M., 756
Murphy, James Joseph, 1192
Musick, Vernon Hurschel, 386
Myers, Glenn Edwin, 1192

N

Nance, Luciel Cress, 827
Neal, Charles Aleshire, 1270
Neel, Jesse D., 386
Neve, Herman Ebenhardt, 827
Newburn, Walter, 1010
Newcomb, Cyrus F., 386
Newcome, Thomas H., 1510
Newell, John Quincy, 386
Newkirk, Richard Carlysle, 827
Newton, Ethel Susanna Mitchell, 1010
Newton, Philip, 1442
Nickerson, John Peter, 1109
Nielson, Moses Marion, 669
Nixon, Ray A., 1010
Noble, Thomas Benjamin Sr., 669
Normand, Jean Napoleon, 910
Norris, Albert Perley, 487
Norton, Earl Fernando, 1109
Norton, James M., 1442
Nugent, Arthur Clarence, 1192

O

O'Brien, James Nester, 1109
O'Connor, John James, 1010
Okonogi, Bunkuro, 1192
Older, Benjamin, 669
O'Malley, Andrew Walsh, 386
O'Neill, Bernard Joseph, 567
Orcutt, Wallace Lyman, 1192
Otto, Henry John, 1109

P

Pace, Lloyd Rio, 1192
Packard, Francis R., 486
Palmer, John Mathiew, 1192
Pamphilon, Walter Melville, 486
Parish, Irving, 1010
Parker, Bennett Roland, 386
Parodi, Teofilo, 1442
Parsons, Joseph G., 1010
Patterson, Carl George, 755
Paule, Charles Edward, 1011
Pearce, Robert Sims, 827
Peck, Robert Shannon, 128
Pegram, James West, 567
Pendleton, Cyrus Edmund, 1011
Pennington, James Hinton, 487
Pennoyer, Grant Palmer, 566
Penwell, George Harvey, 1510
Perkins, Stanley Reuben, 1271
Perkins, Thornton W., 1011
Perry, Mabelle Jeanne, 827
Perry, Samuel Wesley, 827
Peters, George Elliott, 128
Peters, Sylvester Brackenridge, 567
Pettus, Florence, 386
Phillips, Elliott Earle, 1011
Phipps, David Lincoln, 756
Phipps, Isom H., 1442
Phythian, John Linton, 386
Pierce, Charles Edwin, 567
Pierce, James Mortimer, 1011
Pitkin, Dwight Livingston, 827
Plank, John Ransom, 386
Poe, John Seldon, 1011
Pohlman, Augustus Grote, 192
Pollock, John Roy, 756
Poltchaninoff, Nicholas John, 1510
Pomeroy, Frank Kenneth, 386
Porter, John Rice, 567
Potter, Eugene Breckenridge, 567
Potter, George Walter, 1357
Prather, Charles DeVault Jr., 1510
Prather, Roy William, 669
Presley, William Jennings, 567
Price, Charles Gary, 827
Prigge, Henry, 128
Probert, Clarence Clement, 1011
Prominski, Alexander John, 1192
Purcell, Albert Charles, 827
Pyles, William Thomas, 1442

Q

Quick, Roy Woodney, 1271
Quigley, Austin R., 910
Quinn, James McCaren, 756

R

Ravine, William, 567
Rawls, Vance Quitman, 1357
Ray, William A., 487
Reading, William Boyd, 193
Reed, Israel Bebout, 910
Reed, Jared A., 669
Reeder, Henry Maurice, 1011
Reedy, Robert Aaron, 1510
Reichard, Lewis Nyman, 1011
Reid, Peter, 669
Reid, Robert Francis, 756
Reimer, Earl Samuel, 128
Reinhard, Ferdinand Oscar Wolfgang, 308
Reynolds, Earl Owen, 128
Reynolds, Orrin Lyle, 1271
Rich, Charles O'Neill, 827
Richards, Charles Carr, 128
Richards, George Gill, 667
Richards, William Roy, 386
Richter, Conrad, 128
Ridgell, William James, 827
Ries, Fritz, 1271
Rigelhaupt, William, 487
Riland, Chester, 309
Riley John William, 1011
Rindlaub, John Henry, 127
Rinehart, Harvey Earl, 1011
Ringle, Charles A., 827
Ringo, Robert Ellis, 756
Riseling, Charles Everett, 1192
Roberts, Joseph England Jr., 1192
Robertson, William Fernando, 1510
Robinson, John Steven, 756
Robinson, Joseph Harrison, 128
Robinson, Sydney M., 309
Roche, Mary E., 910
Rogers, Frederick Edward, 1011
Rollins, Frederick Herbert, 827
Roper, Luther Eldridge, 386
Rose, Julius Townsend, 669
Rosenberg, Jacob Joseph, 1357
Rosenberry, Edward Shimer, 756
Ross, Carl Thorburn, 1192
Ross, Colin Kenneth, 128
Rothschild, Ida W., 1011
Rottenberg, Solomon, 1192
Rubendall, Clarence, 1192
Rueck, Erwin John, 309
Rule, Andrew Lafayette, 756
Rumford, Samuel C., 1510
Russell, Christopher Hugo, 1192
Russell, Donald Gordon, 386
Russell, John Abner, 1510
Russell, S. Frank, 756
Ryan, Maxwell Donnell, 1441
Ryder, Charles Tripp, 1271

S

Sager, Washington Budd, 1271
Sandor, Ladislaus John, 756
Sangree, Chalmers, 756
Santangelo, Stephen, 1192
Saur, Charles, 1011
Savoy, Walter Stanford, 1357
Sawyers, Sylvester Harlan, 827
Scannell, Edward John, 487
Schaefer, Samuel, 1271
Schaffle, Karl, 909
Schelm, George William, 193
Schenck, George Frederick, 1442
Schlernitzauer, Wm. Champness (see Williams, Wm. Champness)
Schlossmann, Nat Israel (see Schlossmann, Nathaniel Charles)
Schlossmann, Nathaniel Charles, 309
Schmid, Cornelius Adrian, 669

Deaths—Continued
Schmitter, Ferdinand, 1510
Schnauffer, William Jr., 669
Schneider, John Peter, 1192
Schnetz, Luther Nelson, 1011
Schoepfer, Rene Frank, 910
Schoofs, Orlando Peter, 1357
Schreiber, Henry Richard, 386
Schriver, Howard Marcus, 1109
Schwartz, Jesse David, 487
Scofield, Charles L., 567
Scott, Norman McLean, 309
Seibert, William K., 1011
Sentner, Charles Sylvester, 128
Sether, Alvin Fernando, 669
Sevcik, John Louis, 756
Shafer, Frederick William, 756
Shaw, Adam Ernest, 567
Shaw, Albert William, 1271
Sheeut, Linnaeus Cuthbert, 128
Sheffield, Herman Bernard, 308
Sheinmel, Archie, 827
Shepard, Charles Jerome, 308
Sherfey, Carl Wagner, 193
Shimberg, Mandell, 1357
Shipe, William Thomas, 386
Shufelt, Alson Anderson, 1442
Shumaker, Daniel Webster, 487
Sibley, Samuel James, 1357
Siggins, John Charles, 386
Sigler, Edwin Walker, 1510
Simon, Karl Jacob, 193
Simpson, Charles Moffett, 309
Simpson, Jesse Hall, 1357
Singer, Harry, 1271
Skeele, William Amos, 567
Slack, Clarence Johnson, 910
Slaughter, Charles C., 487
Smeltzer, Charles Everett, 910
Smith, Albert Alexander, 1011
Smith, Ernest V. Sr., 1357
Smith, Frederick De Witt, 827
Smith, Grace Gardiner, 910
Smith, Henry Albert, 910
Smith, Jesse Glen, 487
Smith, Lindsey Gillespie, 669
Smith, Louis Northrup, 193
Smith, Marcus Ormen, 1271
Smith, Morris Kellogg, 1356
Smith, Orrick E., 487
Smith, Sidney M., 1011
Smith, Thomas Harley, 756
Smith, Van, 1011
Smith, William Earl, 1357
Smith, William Warren, 1271
Sneed, Archie Gustavus, 1011
Snow, William Freeman, 1009
Solomon, William Otto, 128
Sonnenschein, Harry David, 1357
Spalding, William Cullen, 1271
Spell, Frank Reid, 128
Spivak, Louis Joseph, 1011
Spoor, John Sellers, 756
Spurney, Anton Benjamin 910
Stalvey, John Kelly, 1357
Starr, Samuel, 567
Steelsmith, Daniel Clarence, 308
Steinhart, Lewis Phillip, 669
Sterrett, John Victor, 1510
Stevens, Grace, 386
Stevenson, Bonny Miller, 1109
Stevenson, Michael Daniel, 1271
Steward, Cleveland Rex, 910
Stofer, Michael Webster, 669
Stokes, Albert John, 128
Stone, James Albert, 386
Stonerock, John T., 1271
Stroud, Carliss Malone (see Stroud, C. Malone)
Stroud, Charles Crawford, 309
Stroud, C. Malone, 1357
Struthers, Clayton Pryor, 669
Stuck, Walter Goodloe, 127
Stults, John Samuel, 487
Sturre, Julius Richard, 128
Sutherland, Edgar Lemon, 827
Sutliff, Frederick Augustus, 567
Swartz, Kenneth Albert, 193
Sweeney, Joseph John T., 386
Sweetser, Horatio B., 710
Swift, Edwin Chester, 1009

T

Tannenbaum, Julius, 1011
Tarbox, Harry Russell, 1011
Tatum, P. A., 669
Taurchini, Mario Francis, 710
Taylor, Lester, 308
Tenney, Charles Frederick, 308
Thomas, Frank Howard Jr., 755
Thompson, Earnest L., 1011
Thomson, Alec Nicol, 1441
Thomson, David Alexander, 128
Tibe, Matilda Luke, 710
Tillman, John S., 1357
Timm, Vincent Michael, 386
Todd, Frank Paige, 386
Tomlinson, William, 1357
Toothaker, Wayne Marion, 1011
Toro, Jorge del, 909
Trenckmann, Otto A., 756
Troy, Anderson L., 669
Truett, Charles Badgett, 756
Tucker, Easter Wood, 1011
Tucker, Felix R., 128
Tucker, Samuel Chase, 1271
Turner, Charles Alexander, 669
Turner, John Riley, 1271
Turner, Paul Akers, 567
Tyree, Cyrus Ellis, 1271

U

Underwood, John B., 1442

V

Van Altena, Louis A., 1442
Van Duzer, William Roy, 1442
Van Noy, Levi Tipton, 1442
Van Ophuijsen, Johan Hendrik Wijnand, 1009
Van Poole, Gideon McDonald, 755
Van Sciver, John Elnathan L., 1510
Vaughan, James A., 567
Vermilye, Herbert Noble, 384
Vetter, Ronald Curtis, 309
Voelkner, George H., 1510
Volhard, Franz, 825
Volini, Italo Frederick, 1009

W

Wagner, Charles, 710
Walker, George Alvin, 567
Walker, Isaac Chandler, 1509
Walker, John, 386
Walker, Madison Frank, 1442
Walker, Orville Jackson, 710
Walsh, Henry Victor, 1011
Walsh, Thomas Joseph, 827
Waltz, Frederick Alden, 1011
Ward, Henry Silas, 826
Ward, Jesse Elliott, 567
Ward, Thomas Eugene, 1442
Warner, William Halsey Alonzo, 827
Washburn, Harry Augustus, 669
Waterbury, Charles Arthur, 710
Waters, Zura Orthello, 710
Watkin, Clifford Ray, 710
Watkins, Charles Napoleon, 1442
Watkins, James Harold, 710
Watson, Henry DeWitt, 1510
Watson, Stephen Sidney, 309
Weaver, John Sebastian, 128
Webster, John Clarence, 566
Weinberg, Leonard David, 827
Weintraub, Harry, 669
Weir, Clark E., 1011
Weir, Levi Johnson, 1510
Weiss, Bernard, 386
Weitzen, Max, 669
Welland, Herman, 756
Wells, David Washburn, 384
Wells, Gould Terrance, 756
Wells, Walter William, 309
Wenger, John McCloud, 128
Werner, Olof S., 309
Westby, Nels, 567
Wharton, Joseph Earl, 386
Whiddon, Rufus C., 1442
Whipple, Lewis Allen, 309
Whiting, Lewis Butler, 386
Whitmarsh, Thomas Robert, 386
Whitsitt, Wilson Henry, 710
Wiley, John Joseph, 827
Wilhelm, Arthur Farrington, 386
Wilkinson, George Henry, 669
Williams, Arthur B., 567
Williams, Harry Bion, 1011
Williams, Horace James, 1009
Williams, Lowell Eugene, 1442
Williams, Pearl, 309
Williams, William Champness, 128
Willke, Gerard Thomas, 386
Willson, Marion Orr, 567
Wilson, Percy H., 128
Wilson, Frank Delos, 1011
Wilson, Frank Minium, 128
Wilson, Kenneth George, 1510
Wilson, Robert Rudolph, 567
Wiltshire, James W., 1510
Winchester, Albert Newton, 128
Windholz, Frank S., 669
Winebrake, Albert Jefferson, 309
Wise, Herbert Bennette, 1011
Witte, Hermann L., 1510
Wojczynski, Leo Joseph, 386
Wood, Clifford Harvey, 386
Wood, Frederick Barton, 1510
Wood, Wilbur C., 710
Woods, William Hagood, 386
Woodworth, John Dawson Roswell, 1011
Worden, Stanley, 386
Wren, Charles Wadison, 756
Wright, Harold Edson, 386
Wrinkle, George Scott, 669
Wunschow, Otto Buford, 710

Y

Yates, John Stubbs, 309
Young, Carl Oscar (see Young, Charles Oscar)
Young, Charles Oscar, 756
Young, James W., 1011
Young, John P., 567
Young, L. Otis, 1442
Young, Roy Odo, 1011

Z

Zambarano, Ubaldo Edward, 1011
Ziegler, Charles Edward, 755
Zigler, Maximillian, 193
Zuercher, John Charles, 386

E

E Compound: See Cortisone
EAR: See also Deafness; Hearing; Oto—
diseases, [Küstner] 209—ab
endolymphatic hydrops without vertigo, [Williams] 1279—ab
Inflammation of Middle Ear: See Otitis Media
piercing ears for earrings, (reply), [Seiger] 696
Ringing in: See Tinnitus
solution furacin, N.N.R., (Eaton), 1486
surgery, fenestration for otosclerosis, [Jongkees] 931—ab; 1220
toxic effect of streptomycin on vestibular system, Netherlands, 130
tuberculosis, streptomycin in, [Silrala] 686—ab
vestibular function, reactions to dihydrostreptomycin, [Carr & others] *1223
EARLY rising after Operation: See Convalescence
EARRINGS, piercing ears for, (reply) [Seiger] 696
ECHINOCOCCOSIS
of vertebrae, [Woodland] 503—ab
ECLAMPSIA
follow-up of cases, [Bryans] 200—ab
treatment, ACTH, [Garrett] 1452—ab
treatment, continuous spinal anesthesia, [McElrath] 200—ab
ECONOMICS, MEDICAL: See also Fees; Income; Insurance, sickness; Medical Service; Medically Indigent
A.M.A. Bureau of Medical Economic Research: See American Medical Association
cost of British National Health Service, [Martin & others] *1432
cost of living vs. medical care prices, 1160—E; [Dickinson] *1198
cost of medical service, A.M.A. resolution on, 1084; 1098
cost of medical services contrasted with other items, 1185
costs of veterans hospital and medical care, [Kracke] *1327
public spending, England, 310
EDEMA: See also Ascites; Dermatomyositis
after radical mastectomy, 782
angioneurotic, from aureomycin, [Parets] *653
EDEMA—Continued
General or Universal of Newborn: See Erythroblastosis, Fetal
in kidney disease, [Boyle] 676—ab
solid, of face, 1127
EDUCATION: See Schools; Students
Audio-Visual: See Moving Pictures
Health: See Health education
Higher: See University
U.S. Dept. of Health, Education and Security: See United States
EDUCATION, MEDICAL: See also Graduates; Schools, Medical; Students, Medical; University
A.M.A. Council on: See American Medical Association
A.M.A. Reference Committee report, 1092
basic orientation and education of medical student, [Romano] *409
course in International Medical Law, 1358
course in orthopedic surgery, Belgium, 759
federal aid to, 819; 902; 1264
Fellowship: See Fellowships
graduate, continuation courses for physicians, *572
graduate, effects of National Health Service on, [Diehl & others] *1497
graduate training, A.M.A. resolution on, 1080; 1093
graduate training in cancer, 1106
graduate training program of U. S. Navy, 750; 1180; 1435
Graduates: See Graduates
Internship: See Internship
Premedical Training: See also Basic Science
premedical training required by state boards, *453; *459
Residencies: See Residents and Residencies
Scholarships: See Scholarships
survey of, in Great Britain, 983; 987; 1088; [Diehl & others] *1492
teaching, reform of, Paris, 1110
training in pediatrics, North Carolina Plan, [London & Davison] *1232
training in psychiatry, [Gerty] *613
training programs in general practice, A.M.A. resolution on, 1173
U.S. Medical Academy, 1185; 1263
WHO medical training centers in Europe, 666
EFFORT
Angina of: See Angina Pectoris
Syndrome: See Asthenia, neurocirculatory
EGGS
Bang's disease transmitted through, 1380
raw, nutritive value, 215
ELASTIC STOCKING, Astar'te Two-Way Stretch, 971
ELDERLY: See Old Age
ELECTRIC: See also Electro—
burns of mouth, [Tummers] 1214—ab
Current: See also Ion Transfer
current treatment for multiple sebaceous cysts of neck, 610
currents of action, registering on embryo's heart, France, 194
Hearing Aids: See Hearing Aids
Refrigerators: See Refrigerators
shock treatment, cardiovascular changes from, [De Bastiani] 1032—ab
shock treatment, curare prophylaxis in, [Flordh] 1033—ab
shock treatment for intractable pain, [Catalano-Nobili] 210—ab
shock treatment in patient with scoliosis and lordosis, [Kwalwasser] 1209—ab
shock treatment, rupture of rectus abdominus muscle after, [Savitsky & Karliner] *431
shock treatment, Turkey, 312
shock treatment using low current, [Lemere] 1209—ab
Transcriptions for Radio: See Radio
ELECTROCARDIOGRAMS: See Heart
ELECTROCOMA: See Electric shock treatment
ELECTROENCEPHALOGRAPHY: See Brain
ELECTROGRAMS during cardiac catheterization, [Rader] 842—ab
ELECTROLYTES
expenditure in fluid therapy, [Darrow & Pratt] *365; *432
ELECTROPHORESIS: See Ion Transfer
ELECTROPHRENIC RESPIRATOR
in acute bulbar poliomyelitis, [Sarnoff & others] *1383
ELECTROPYREXIA: See Fever, therapeutic
ELECTROTHERAPY: See Electric shock treatment
ELECTROTHERMY: See Diathermy
ELEKTROKYMOGRAPHIC Conference, (1st), 662
ELIASON Memorial Fund: See Foundations
ELKS National Foundation: See Foundations
EMBLEMS: See Insignia
EMBOLISM: See also Thrombosis
air, in blood donors, use of vacuum set, [Ende & Ziskind] *1483

EMBOLISM—Continued
air (venous), aspirate air from right ventricle of heart in, [Stallworth & others] *1250
cardiac (recurrent); prophylaxis, [Cosgriff] *870
emboli cause of death in myocardial infarction, [Doscher] 1447—ab
peripheral, [Andrus] 921—ab
pulmonary, anticoagulant therapy, [Vander Veer] 836—ab; [Duff] 1278—ab
pulmonary, maternal, caused by amniotic fluid, [Schenken] 836—ab
treatment, femoral embolectomy 17 days after coronary occlusion, [Nutter] 1369—ab
EMBRYO: See also Fetus
culture in dead chick embryos, [Weiss] 1206—ab
registering currents of action on heart of, France, 194
EMERALD OIL Moone's, FTC action, 377
EMERGENCIES
American way of living, 118—E
A.M.A. Council on National Emergency Medical Service: See American Medical Association
call plans, 990
Medical Service: See First Aid
EMESIS: See Vomiting
EMETINE
toxic effects on cardiovascular system, [Charters] 1372—ab
EMIGRÉ Physicians: See Physicians, foreign
EMORY UNIVERSITY
to build medical research unit, Georgia, 904
EMOTIONS: See also Mental Hygiene; Psychosomatic Medicine
causes of grinding of teeth in children, (reply), [Bulger] 612
pathogenesis of urticaria, [Graham & Wolf] *1396
psychologic cause of gastric ulcer, Sweden, 759
EMPHYSEMA
bullous, intracavity suction for, [Head] 139—ab
treatment, oxygen, mental changes with, [Comroe & others] *1044
EMPLOYEES: See Industrial Health
EMPLOYMENT Opportunities for Physicians: See Physicians, positions open
ENCEPHALITIS
field laboratory for study, Colo., 1188
laboratory test in, [Milzer] *219
toxic, fatal, from streptomycin, [Campanacci] 400—ab
ENDAMEBA Infection: See Amebiasis; Colitis, amebic
ENDOCARDITIS
bacterial mural, produced by proteus, [Taniguchi & Murphy] *426
bacterial subacute, of diphtherial origin, [Almklov] 926—ab
bacterial subacute, treated with penicillin, follow-up study, [Pillsbury] 1203—ab
diagnosis, Weltmann reaction, [Djordjevic] 774—ab
ENDOCRINE GLANDS: See also under names of specific glands
control of prostate cancer, [Nesbit & Baum] *1317
research fellowships by Schering Corporation, 1005
ENDOLYMPHATIC HYDROPS, [Williams] 1279—ab
ENDOMETRIOSIS, [Colcock] 1365—ab
complicating pregnancy, [Ware] 1115—ab
etiology: hysterosalpingography, [Teilum] 1289—ab
of cervix simulating cancer, [McGuff] 1283—ab
sterility in, 693
ENDOMETRITIS
treatment, aureomycin, [Guilbeau & others] *522
ENDOMETRIUM
Aberrant: See Endometriosis
cancer, genesis, [Hertig] 137—ab
Inflammation: See Endometritis
tuberculosis, congenital pulmonary aspiration tuberculosis, [Hertzog] 134—ab
ENERGY: See Work
Atomic: See Radioactive Isotopes
Metabolism: See Metabolism, basal
Value of Food: See Calories
ENTERITIS: See Intestines
ENTEROBIASIS: See Oxyuriasis
ENURESIS: See Urine incontinence
ENVIRONMENT
Medicine Dept. (new), at Johns Hopkins, 483
ENZYMES: See under names of specific enzymes as Glucuronidase; Penicillinase; Thrombin
EOSINOPHILIC GRANULOMA: See Granuloma
EOSINOPHILS
ACTH treatment of eosinophilic leukemia, [Donohue & others] *154
eosinophil value "greater than 6 per cent," 938
erythredema, Israel, 671
index, value in thrombocytopenic purpura, [Schwartz] 1447—ab
response to ACTH, [Donohue & others] *154; [Roche] 925—ab
response to epinephrine in rheumatoid arthritis, [Guest & others] *338
EOSINOPHILS—Continued
tropical eosinophilia and Loeffler's syndrome, ACTH use in, [Herbert] 500—ab
EPIDEMICS: See also under names of specific diseases
diseases in 1949, Denmark, 388
Prevention: See Immunization; Vaccination
EPIDERMIS: See Skin
EPIDERMOID
clinical evaluation and surgical results, [Grant] 1520—ab
tumors of frontal bone, sinus and orbit, [Thacker] 920—ab
EPIDERMOPHYTOSIS: See Dermatophytosis
EPILEPSY
clinic opened, Delaware, 1504
complicating pregnancy, 215
effect of drinking alcohol, [Geddes] 1115—ab
electroencephalography, [Ferrero] 1291—ab
experimental, section of corpus callosum in, [Kopeloff] 1449—ab
pneumoencephalography in [Hedegaard] 1122—ab
psychomotor, surgical treatment, [Morris] 924—ab
treatment, hypertrophy of gums from diphenylhydantoin, 1298
treatment, mesantoin, [Kozol] 679—ab; [Bercel & others] *1460
treatment, phenobarbital-hydantoin combination, [Pence] 1210—ab
treatment, prefrontal leukotomy in minors, [Yahn] 1290—ab
EPINEPHRINE
content of pheochromocytoma [Goldenberg & Aranow] *1140
effect on pituitary-adrenocortical; system, [Recant] 1025—ab
treatment, inhalation, for bronchial asthma, Israel, 914
treatment of rheumatoid arthritis, response of eosinophils to, [Guest & others] *338
EPITHELIOMA
Chorioepithelioma: See Chorionic Carcinoma
irradiated skin preceding, [Walter] 685—ab
ERB-Goldflam's Disease: See Myasthenia gravis
ERECTION: See Priapism
ERGOT
treatment of migraine, 182; [Fuchs & Blumenthal] *1462
ERICKSON, GEORGE C., "Magic Spike" gets spiked: Virilium tube of, 571—BI
ERIE COUNTY Medical Society postcard survey on antihistamines for colds, [Arbesman] 198—C
ERUPTIONS: See also Industrial Dermatoses; Urticaria; under names of specific diseases as Measles
etiology: aureomycin, [Parets] *653
etiology: home permanent, 1128
pruritic rash and diabetes, 781
ERYTHEMA
arthritic epidemic (Haverhill fever) Netherlands, 130
multiple, mucocutaneous-ocular syndromes, [Robinson] 1022—ab
nodosum as guide to tuberculosis morbidity, Sweden, 1444
nodosum, incidence; effect of BCG, Norway, 195
Nodosum (Valley Fever): See Coccidioidomycosis
ERYTHREDEMA
eosinophilic, Israel, 671
pink disease or infantile acrodynia, sodium chloride with or without desoxycorticosterone orally, [Cheek] 1212—ab
ERYTHREMIA: See Polycythemia
ERYTHROBLASTOSIS, FETAL, [Ginsberg] 918—ab
cesarean section on account of history of, [Klebanow] 143—ab; [Hocks] 143—ab
intelligence quotient after, [Gerver] 843—ab
treatment, alpha tocopherol (vitamin E) [ten Berge] 1374—ab
treatment, blood transfusion with sedimented red cells, [Pennell] 840—ab
treatment, exchange transfusion, [Wiener] 205—ab
treatment, replacement transfusions, [Gautier] 1122—ab
ERYTHROCYTES
Count: See Anemia, Pernicious; Polycythemia
formation, role of iron, [Dahl] 1525—ab
Sedimentation: See Blood sedimentation
sedimented, transfusion with, in erythroblastosis, [Pennell] 840—ab
serum test for active tuberculosis, 1489—E
Sickling: See Anemia, sickle cell
ESCHERICHIA
meningitis in infants caused by, [Grundler] 504—ab
ESOPHAGUS
foreign bodies, in children, anesthesia for endoscopic removal, 780
hiatal hernia, [Clerf & others] *169
megaesophagus and trypanosomiasis, 1512
short, [Rennie] 142—ab
varices, hematemesis due to, [Garlock] 398—ab
varices, packing mediastinum for, [Garlock] 1208—ab
ESOPHAGUS—Continued
varices, portal systemic venous shunts for, [Linton] 135—ab
ESTRADIOL
ethinyl, to suppress lactation, [Stewart] 845
treatment vs. estrone of menopausal patients?, 940
ESTROGENIC SUBSTANCES: See also Estradiol; Estrone
Diethylstilbestrol: See Diethylstilbestrol
treatment of artificial menopause in woman 19, 326
water soluble, N.N.R., (Squibb), 1486
ESTRONE (theelin) treatment of menopausal patients?, 940
ETAMON CHLORIDE treatment of multiple sclerosis, [Schumacher] *1243
ETHICS, MEDICAL
A.M.A. resolution on practice of medicine by hospitals, 1073; 1080
A.M.A. resolutions on enforcement of principles of, 660—OS
arbitration, 7—ab
code for scientists, 1262—E
code of, and restraint of trade: commercial laboratory vs. New York State Society of Pathologists, 1417—E
Committee on Hospitals and Practice of Medicine, report, 1073; 1075; 1082; 1083; 1088
excerpts from, 1404—ab
misunderstandings to be avoided, 624—ab
patents, commissions, rebates and secret remedies, 151—ab; 1320—ab
patience, delicacy and secrecy, 1481—ab
professional secrecy, Denmark, 130
safeguarding the profession, 338—ab; 1303—ab
standards, usefulness, nonsectarianism, 960—ab
upholding honor of profession, 431—ab
World Code of Medicine, 1013
ETHINYL ESTRADIOL
N.N.R., (Biorganic) 1486
treatment of rheumatoid arthritis, [Kersley] 1372—ab
treatment to suppress lactation, [Stewart] 845—ab
ETHYL ACETATE
danger from swallowing nail polish remover, 941
*di*ETHYLSTILBESTRŌL: See Diethylstilbestrol
EUPHORIA, effects of ACTH therapy, [Hoefer & Glaser] *620
EUROPE
immunizations before going to, 405
medical periodicals for foreign relief, 382; 1353
millions of gifts to Germans from Americans to relieve suffering, 724—ab
United States contributions to needy countries, 665
EUTHANASIA: See Death
EVIDENCE: See Medicolegal Abstracts at end of letter M
EXAMINATION: See Licensure; Physical Examination; State Board
EXANTHEMS: See Eruptions
EXERCISE: See also Athletics; Golf; Walking
Master 2-Step Exercise Test: See Heart electrocardiogram
unilateral, effect on paralyzed or injured limb, 559—E
EXFOLIATION: See Dermatitis exfoliativa
EXFOLIATIVE Cytology: See Cancer diagnosis
EXHAUSTION: See Fatigue
EXHIBIT: See American Medical Association; Limbs, Artificial; Physicians, avocations
EXOPHTHALMOS: See also Goiter, Toxic
in oxycephaly, [Bodian] *15
monocular, 326
EXPANSOMETER, Newman, 181
EXPECTORATION: See Cough
EXPEDITION, Kon-Tiki, health problem of 1195
EXPERIMENTATION: See Animal Experimentation; Research
EXPLOSIONS, Atomic: See Atomic Energy
EX-SERVICEMEN: See Veterans
EXTREMITIES: See also Arms; Foot; Legs
Arterial Disorders in Upper Extremity and Their Treatment by Sympathectomy (film review), 1274
Artificial: See Limbs, Artificial
Blood Supply: See Blood Vessels disease (peripheral)
congenital absence of limbs, 694
Paralysis: See Hemiplegia; Paraplegia
physiologic amputation by tourniquet and refrigeration, [Large] 1117—ab
EXUDATES, cancer cells in neoplastic exudates, [Shu Chu Shen] 768—ab
EYELIDS
chronic blepharitis, 1382
"Granular Lids": See Trachoma
infections, sodium propionate for, [Theodore] *226
EYES: See also Blindness; Conjunctiva; Cornea; Glasses; Lens, Crystalline; Nerves, optic; Ophthalmology; Orbit; Retina; Vision
Bank for Sight Restoration affiliates with George Washington U. Hospital, 1436
burning sensation in, 693
Diseases: See also Conjunctivitis; Glaucoma; Keratoconjunctivitis; Trachoma

EYES—Continued
diseases, veterans allowed to consult optometrist for, 1185
hyaluronic acid in subretinal fluid, [Godtfredsen] 207—ab
infections (external), use of sodium propionate in, [Theodore] *226
Protrusion: See Exophthalmos
research facilities expanded, California, 304
symptoms of migraine, [Donahue] 316—ab
tuberculosis, paraaminosalicylic acid and streptomycin for, [Bietti] 839—ab
EYESIGHT: See Vision

F

F COMPOUND of Kendall: See Hydroxycorticosterone
F.S.A.: See Federal Security Agency
FABRICS: See Nylon; Rubber
FACE: See also Eyes; Lips; Mouth; Nose; etc.
Paralysis: See Paralysis, facial
solid edema of, 1127
FAIRCHILD-Huxley Chest Respirator, 1157
FALLOPIAN TUBES: See Oviducts
FALLOT'S Tetralogy: See Heart anomalies
FAMILIES: See also Children; Marriage; Infants; Maternity
diabetes, familial distribution, [Harris] 1370—ab
facial palsy, multiple attacks in 3 brothers, [Stone] *1154
hemochromatosis with hypoadrenalism, [Capretti] 209—ab
polyposis in, 859
size of, number of large families decrease, 908
FASCIA: See also Contracture
plantar, spurs on heels, 1458
FAT: See also Acid, fatty; Lipids; Obesity; Oil
absorbed, transport of, 818—E
absorption, 417—ab
calories and, [Howe] *1339
in Blood: See Blood
ingested in diet, role in incidence of sprue, [Gilroy] 322—ab
metabolism; ACTH relation to, [Archer] 570—C
sparing action of, 1160—E
FATIGUE: See also Asthenia
from walking or standing on hard floors, 693
tiredness and overweight, 696
FATTY ACIDS: See Acid
FECES: See also Sewage
excretion of rutin and related flavones, (Council report), [Clark & MacKay] *1411
Loose Stools: See Diarrhea; Dysentery
FECUNDATION: See Impregnation, artificial
FECUNDITY: See Fertility
FEDERAL: See also United States
Funds, Grants, Aid: See United States Government
Legislation: See Laws and Legislation, federal
Security Agency: See also Health, U.S.P.H.S.
Security Agency (investigation of), 900—E; 902; (telegram from A.M.A. Washington Office) 1163
Workers: See United States employees
FEEBLEMINDEDNESS: See Idiocy; Mental Deficiency
FEEDING: See Diet; Food; Nutrition
of Infants: See Infants, feeding
FEER'S Disease: See Erythredema
FEES: See also Income
A.M.A. resolution on exploitation of services of physicians for financial profit, 1077; 1089; 1095
for examination in basic sciences, *471
licensure, *456; *461
physicians, dentists, optometrists, vs. price of living, 1160—E; [Dickinson] *1198
FEET: See Foot
FEINBERG Scholarship: See Scholarships
FELLOWSHIPS: See also Scholarships
Alpha Gamma Delta, to aid in training handicapped, 665
A.M.A.: See American Medical Association
American Cancer Society (available) 1268
American College of Physicians, for research, 1007
American Heart Association, 754; 1439
Arthritis and Rheumatism Foundation, 1007
Atomic Energy Commission program in industrial medicine, 1265
Bertner Foundation in cancer research, 1189
Goldblatt, offered for research in blood diseases, 484
Isaacs, for research in blood diseases, 484
Koessler, of Institute of Medicine, Chicago, Illinois, 482
National Research Council of Canada, 1507
New York Medical College, 905
Osborne (Earl D.) in dermal pathology, 565
Painton, in rheumatic fever, Ohio, 564
Provident Medical Associates, 1189
Reader, for research in blood diseases, 484
Schering Corporation, for endocrine research, 1005
Soroptimists Club award, South Dakota, 906
U. S. High Commissioner fellowship plan for Germany, 822
FEMUR
fractures, medullary nailing vs. skeletal traction and dual plating, [Street] *709
fractures of neck, combined nailing and internal fixation, [King] 1211—ab
FENESTRATION: See Ear surgery
FERRIC: See Iron
FERTILITY: See also Families, size of; Impregnation; Spermatozoa; Sterility; Sterilization, Sexual
National Research Foundation for, 511
FERTILIZATION: See Impregnation, Artificial
FETUS: See also Embryo; Infants, Newborn; Placenta; Pregnancy
death after tetanus antitoxin given to mother, 405
Erythroblastosis in: See Erythroblastosis
Position: See Labor presentation
Postmortem Delivery: See Cesarean Section
Premature: See Infants, premature
Rh Factor in: See Rh Factor
roentgen demonstration of fetal skeleton, 150
tuberculosis in, [Hertzog] 134—ab
vernix caseosa, 328
FEVER: See also Rheumatic Fever; Typhoid
Blister: See Herpes simplex
Canicola: See Leptospirosis
Cerebrospinal: See Meningitis, cerebrospinal epidemic
Childbed: See Puerperal Infection
febrile convulsions in children, [Peterman] *726
Glandular: See Mononucleosis, Infectious
in children, [Thelin] 208—ab
Malta: See Brucellosis
Marañon syndrome of adiposity, exophthalmic goiter and fever, Spain, 758
Mite Bite: See Tsutsugamushi Disease
of unknown origin, routine serologic tests in, [Milzer] *223
Parrot: See Psittacosis
Q: See Q Fever
Rabbit: See Tularemia
Recurrent: See Relapsing Fever
San Joaquin: See Coccidioidomycosis
therapeutic, in neurosyphilis [Nørgaard] 1033—ab
therapeutic, plus penicillin in early syphilis, [Piotke] 919—ab
Tick: See Rocky Mountain Spotted Fever
Undulant: See Brucellosis
Valley: See Coccidioidomycosis
FIBROPLASIA, Retrolental: See Lens, Crystalline
FIBROSIS benign, of sphincter of Oddi, [Trommald] 1119—ab
FIBROUS Dysplasia: See Bones
FILMS: See also Microfilms; Moving Pictures; Roentgen Rays
thin, symposium on, sponsored by Armour Research Foundation, 484
FINGERS: See also Nails
numbness of, and blanching, 1040
pneumatic hammers effect on, 514
FIRE: See Burns
FIREARMS: See Wounds, gunshot
FIRST AID
burn problem in atomic warfare, [Evans] *1142
for cranial trauma, manipulation of carotid arteries in, [Kranenburg] 603—ab
training in, by U. S. Bureau of Mines, 751
FISH
strained tuna, Van Camp Sea Food Co., products, 24
FISTULA
anal, complicating ulcerative colitis, 781
FITS: See Convulsions
FLATULENCE
abdominal distention, stigminene bromide for, [Whitaker] 845—ab
FLAVONOID SUBSTANCES
absorption and excretion, (Council report), [Clark & MacKay] *1411
FLEMING, ALEXANDER, statement on newer types of penicillin, 1443
FLIGHT: See Aviation
FLOORS
fatigue from walking or standing on hard floors, 693
FLORIDA skin cancer in, [Wilson] 1367—ab
"FLU": See Influenza
FLUIDS: See also Beverages; Milk; Water
Body: See Cerebrospinal Fluid; Lymph; Saliva
therapy, relation to tissue composition and expenditure of water and electrolyte, [Darrow & Pratt] *365; *432
FLUORIDES
programs to reduce dental decay, USPHS, 1503
retention from bone, [Jackson] 1281—ab
sterility and, 1126
toxicity; fluorosis, [Kilborn] 595—ab
toxicity, fluorosis, aluminum salts for, [Venkataramanan] 849—ab
uranium and fluorine, 1070—E
FLYING: See Aviation
FOLIC ACID: See Acid, folic
FOOD: See also Beverages; Cereal Products; Diet; Eggs; Fish; Fruit; Milk; Nutrition; Vegetables; Vitamins
A.M.A. Council on: See American Medical Association
Appetite for: See Appetite
FOOD—Continued
Canned Products for Infants: See Infants, feeding
chemicals introduced in processing of, [Bing] 766—ab
contamination or infection, use of ultraviolet lamps in refrigerators to lessen, 782
Deficiency: See Nutrition deficiency
Digestion of: See Digestion
dyestuffs used in, 1127
Energy value: See Calories
frozen vegetables, thawed, reaction from eating, 942
habits, carbonated beverage dispensing machines in schools, (Council report) 24
Infant's: See Infants feeding
intake and industrial efficiency, [Haldi] 138—ab
meals, profuse sweating before role of hypoglycemia, (reply), [Wolf] 782
of animal origin, [Howe] *1337
supply, soils and health, [Maynard] *807
FOOT: See also Orthopedics
Athlete's: See Dermatophytosis
burning feet (melalgia), nutritional, a deficiency vascular disease, [Vernon] *799
numbness of both feet, 1458
spurs on heels, 1458
FOOTBALL injuries in high school, [Hibbert] 1284—ab
FOREIGN BODIES: See also Bladder; Heart; Intestines
anesthesia for endoscopic removal, 780
FOREIGN COUNTRIES: See also Europe; United Nations; under names of specific countries as Germany; Japan
American Council of Voluntary Agencies for Foreign Service, Inc. distribute journals, 382; 1353
Graduates: See Physicians, foreign
Medical Schools: See Schools, Medical
FORMULA A-N-1, Benson Laboratories, FTC action, 377
FORTHANE N.N.R., (description) 1156; (Lilly), 1156
FOUNDATIONS
American Foundation on Mental Deficiency, 1267
American Leprosy, (new registry of leprosy), 1105
American Society of Plastic and Reconstructive Surgery award, 564
Armour Research Foundation, 484
Arthritis and Rheumatism, (fellowships offered by) 1007; (grants to hospitals, N.Y.C.), 1267
Bartsch (Anna) Fund, 1266
Bertner, (cancer lectureship and fellowship), 1189
Childs (Jane Coffin) Memorial Fund, research awards, 1438
Collins (Joseph), 1505
Eliason Memorial Fund, 664
Elks National, (scholarships in cerebral palsy), 1353
Harvey (Basil C. H.) Fund, 663
Health Information Foundation, 907
National Foundation for Infantile Paralysis, (grants for home care) 825; (research grants), 1008
National Research Foundation for Fertility, (artificial insemination), 511
National Science Foundation, 301
National Vitamin Foundation, (grants), 825
Nebraska Medical Foundation, 563
Oklahoma Medical Research, (sanitarium given to), 125
Sugar Research Foundation, Inc., (award), 1350
FOURTH OF JULY, safety first on, 818—E
FRACTURES: See also under names of specific bones as Astragalus; Femur
A.M.A. exhibit on, 272
Colles: See Radius
coronary thrombosis relation to, 214
spasm in skeletal muscle, [Hareli & others] *640
FRAGILITAS ossium, treatment? 408
FRAUDS: See Impostors
FREJKA abduction pillow splint, [Hart] *1301
FRENCH Congress of Otorhinolaryngology (48th), 1354
Society of Gynecology, invitation to congress in La Baule, France, 126
FREUD'S system and freudians, [Markowitz] 1514—C
FRIGIDITY psychosomatic aspects, [Kroger & Freed] *526; [Markowitz; Exner] 1514—C
FRONTAL BONE, tumors, epidermoid, [Thacker] 920—ab
FRONTAL SINUS
tumors, epidermoid, [Thacker] 920—ab
FROZEN Food: See Food
FRUIT: See also under names of specific fruits as Grapefruit; Peaches; Pears
canned, Diet-Delight brand, 439
FUND: See Foundations
FUNGI culture, vitamins effect on, [von Mallinckrodt-Haupt] 322—ab
Diseases: See Mycosis
FUNICULAR Myelosis: See Spinal Cord
FURACIN, ear solution, N.N.R., (Eaton) 1486
FURUNCULOSIS treatment; tin and tin oxides vs. sulfonamides and antibiotics, 1298

G

GALLBLADDER: See also Medicolegal Abstract at end of letter M
calculi, cholelithiasis in childhood, [Wellauer] 1373—ab
calculi, cholesterol stone, 406
calculi, late results of operations for, 1512
calculi, quiescent gallstones, [Sparkman] 206—ab
surgery, pain after, 150
surgery, postcholecystectomy syndromes; use morphine, atropine sulfate, nitroglycerine, [Amelar] 761—C
GALLIUM, radioactive, research on, by U.S. Navy, 122
GALLSTONES: See Gallbladder calculi
GAMMA Globulin: See Globulin
GANGRENE
acute, fatal, from arteriography, [Joyeux] 1291—ab
treatment, bacitracin in, [Meleney] 678—ab
GANTRISIN: See Sulfisoxazole
GARRISON Lecture: See Lectures
GAS: See under names of specific gases as Oxygen
Embolism: See Embolism, air
Intestinal: See Flatulence
GASOLINE fumes and allergy, 694
GASTRECTOMY: See Stomach surgery
GASTRIC: See Stomach
Juice: See Stomach
Ulcer: See Peptic Ulcer
GASTROENTERITIS
inapparent Salmonella infections in hospitals, [Felsen & others] *1135
GASTROENTEROLOGY
International Congress of Gastrologic Associations (1st), Spain, 1014
National Convention of, Colombia, 1016
Pan-American Medical Week on, (2nd), Brazil, 666
GASTROINTESTINAL TRACT: See also Abdomen; Digestive System; Duodenum; Intestines; Stomach
manifestations of myocardium infaction, [Adams] 840—ab
GASTROSCOPE: See Stomach
GAUCHER'S Disease: See Anemia, splenic
GEIGER Medal: See Prizes
GELATIN
effect on fragile finger nails, [Tyson] 1520—ab
sponge, absorbable, in diagnosis of uterine cancer [Rich] 1516—ab
GENERAL MEDICAL COUNCIL, [Diehl & others] *1493
GENERAL PRACTICE: Practitioner: See Medicine, practice; Physicians, practicing
GENITALS: See also Genitourinary System; Gonads; Penis; Vagina
granuloma inguinale of, [Lipp] 1369—ab
tuberculosis, 860
undeveloped, 514
GENITOURINARY SYSTEM: See also Genitals; Urinary System
tuberculosis, streptomycin for, [Huffines] 203—ab; [Lattimer] 204—ab; [Mullers] 209—ab; [Lattimer] 1116—ab
GERBER'S PRODUCTS, 24
GERIATRICS: See Old Age
GERMAN MEASLES: See Rubella
GERMANY
millions of gifts to Germans from Americans to relieve suffering, 724—ab
Unitarian Service Committee, medical mission to, summer 1950, 907
U.S. High Commissioner for Germany, fellowship plan for German, 822
World Medical Association resolutions against state dictated medicine, 561—OS
GERMICIDES: See also Disinfection
ethyl alcohol evaluated, [Price] 921—ab
GERMS: See Bacteria
GERONTOLOGY: See Old Age
GESTATION: See Pregnancy
GESTOSIS: See Pregnancy, toxemia of
GIFTS: See Donations (cross reference)
GLANDS: See under names of specific glands as Sweat Gland
of Internal Secretion; See Endocrine Glands
Sex: See Gonads
GLANDULAR FEVER: See Mononucleosis, Infectious
GLAUCOMA
acute, induced by homatropine, [Linhart] 1020—ab
GLOBULIN
gamma, and measles, 782
GLOMERULONEPHRITIS: See Nephritis, glomerular
GLOSSODYNIA: See Tongue
GLOVES: See Rubber Gloves
beta-GLUCURONIDASE studies in women, [Fishman & others] *350
GLUCOSE: See Dextrose
GLUTATHIONE
sulfhydryl compounds and experimental diabetes, 1416—E
GLYCEMIA: See Blood sugar
GLYCERIN
infiltrate gums with phenol in, for trigeminal neuralgia, [Solé Sagarra] 850—ab
GLYCERYL TRINITRATE
treatment of hiccup, 214
treatment of postcholecystectomy syndromes, [Amerlar] 761—C
GLYCOSURIA: See Diabetes Mellitus
GOAT'S Milk: See Milk
GOITER: See also Goiter, Toxic; Hyperthyroidism
endemic, iodized salt to prevent, [Wespi-Eggenberger] 1034—ab
iodine deficiency, [Youmans] *1256
GOITER, TOXIC
Marañon syndrome, Spain, 758
treatment, 1-methyl-2-mercaptoimidazole (tapazole), [Reveno & Rosenbaum] *1407
treatment, methylthiouracil, [Poate] 1289—ab
treatment radioactive iodine, [Gordon & Albright] *1129
GOLD
danger from painting body with Venus Rich-gold-Brilliant, 327
Headed Cane: See Prizes
rings, discoloration of skin under, 1298
treatment of rheumatoid arthritis, [Freyberg] *418
treatment of rheumatoid arthritis, BAL for meningitis during, [Myerson] *1336
GOLDBLATT Fellowship: See Fellowships
GOLF tournament at San Francisco Session, 256
GONADOTROPINS
chorionic, treatment in rheumatoid arthritis, [Kersley] 1372—ab
GONADS: See also Ovary; Testis
hypogonadism, undeveloped genitalia, 514
GONOCOCCUS
antibiotic spectrum, [Gocke] 1364—ab
Conjunctivitis: See Conjunctivitis, infectious acute
GONORRHEA: See also Venereal Disease
diagnosis; treatment with penicillin, Paris 911
Ophthalmia: See Conjunctivitis, infectious acute, in newborn
treatment aureomycin, [Chen & others] *724
treatment, oral penicillin in urethritis, [Horne] 1288—ab
treatment, procaine penicillin G, [Hogan] 1368—ab
treatment, terramycin, [Hendricks & others] *4
GOODENOUGH REPORT, [Diehl & others] *1493
GOVERNMENT: See also Federal; United States
control, **not** the American way of living, 118—E
Control of Medicine: See Medicine, state
Hospitals: See Hospitals
GRADUATE
Courses, etc.: See Education, Medical
Fellowships: See Fellowships
GRADUATES: See also Interns and Internships; Residents and Residencies
Canadian, examined for licensure in U. S., 1949, *446
of approved schools and others registered, 1922-1949, *459; *463
of unapproved schools, registered, 1944-1949, *460; *465
GRAFTING: See Skin grafts; Tissues, transplant
GRAHAM, EVARTS
awarded A.M.A. Distinguished Service Medal, 901—E; (results of voting) 977
GRAINS: See Cereal Products
GRAMICIDIN: See Tyrothricin
GRAND MAL: See Epilepsy
GRANULAR Lids: See Trachoma
GRANULOCYTOPENIA: See Agranulocytosis, Acute
GRANULOMA
Coccidioidale: See Coccidioidomycosis
due to talc, [Oliver] 1033—ab
eosinophilic, of jejunum, [Polayes & Krieger] *549
histiocytic, of skull, [Goodhill] 770—ab
inguinale, genital and skeletal, [Lipp] 1369—ab
intradural spinal, [Bucy] 500—ab
Malignant: See Hodgkin's Disease
pulmonary chronic, in beryllium workers, [Robert] 1277—ab
pulmonary, from beryllium, ACTH effect on, [Kennedy] 1518—ab
Venereum: See Lymphogranuloma, Venereal
GRAPEFRUIT
ascorbic acid content of juice, Council report, 439
GRAPHICS: See Journals
GRASS Electroencephalograph, Model III—C; 1487
GRAVES' Disease: See Goiter, Toxic
GRAVITY
transfusion with positive pressure vs. gravity method, [Murphy] 673—C
GREAT BRITAIN: See British; Royal
GREECE
health mission to, 1003
GRIEVANCE Committee: See Societies, Medical
GRIP: See Influenza
GROUP
Health Cooperative of Puget Sound court decision on, 1262—E
GROUP—Continued
Hospitalization: See Hospitals, expense insurance
GROWTH: See Infants
GUILLAIN-BARRÉ SYNDROME
complications: infectious mononucleosis and facial paralysis, treated with BAL, [Creaturo] *234
25 names attached to clinical picture, 967—ab
GUINEA WORM infection (dracunculosis), 1039
GUMS: See also Teeth
hypertrophy, from diphenylhydantoin, 1298
infiltrated with phenol in glycerin for trigeminal neuralgia, [Solé Sagarra] 850—ab
GUNSHOT Wounds: See Wounds
GYNECOLOGY
American Board of: See American Board
A.M.A. resolution on residency training in, 1079; 1092
French Society of, extends invitation to congress in La Baule, France, 126
Italian Society of, 40th congress, 387
physiopathology, discussed at Congress, Italy, 387
Revista Colombiana de Obstetricia y Ginecologia, first issue, 666
GYNECOMASTIA: See Breast hypertrophy in male

H

HETP, hazard of aerial spraying of insecticides, 1158—E
HABIT
disorder in infant: strikes head against crib mattress at night, 694
forming drugs, WHO committee defines, 973—E
HAIR
Ball: See Stomach
cold wave neutralizer, potassium bromate poisoning, [Robertson] 682—ab
discoloration, after taking resorcinol, sulfur, or mercury, 779
dyeing (unintentional), 857
eruption after home permanent, 1128
Loss of: See Alopecia
HAIRY Tongue: See Tongue
HAMSTERS
use in place of guinea pigs to diagnose tuberculosis, 1127
HAND: See also Fingers; Nails; Wrist
loss of sensation in, 611
shoulder syndrome in coronary heart disease, [Carroll] 1024—ab
HANDICAPPED: See also Blindness; Crippled
Alpha Gamma Delta fellowships to aid in training, 665
children, symposium on training of, New York, 563
clinics for, Ill., 1105
employment, 974
federal legislation on, 301
Rehabilitation: See Rehabilitation
HANSEN'S Disease: See Leprosy
HARBITZ, FRANCIS, death, 131
HARRISON NARCOTIC ACT
registration under, 376—E
HARVEY (B.C.H.) Fund: See Foundations
HARVEY Lecture: See Lectures
HAVERHILL Fever: See Erythema, arthritic epidemic
HAY FEVER
chronic urticaria and, 149
premenstrual symptom, 1221
treatment, ACTH, [Randolph] 1365—ab
treatment, benadryl also pyribenzamine, cause of anemia, [Crumbley] *726
treatment, pyribenzamine, cause of agranulocytosis, [Martland & Guck] *742
HEAD: See also Brain; Cranium; Hair; Neck
Bald: See Alopecia
banging in infant when asleep, 694
injuries, intracerebral hemorrhage after, [Grant] 917—ab
injuries, rationale of keeping patients awake after, (reply), [Wilkes] 514
HEADACHE: See also Migraine
postlumbar puncture, DHE-45 for, [Caldwell] 684—ab
"spinal", prevention treatment, (reply), [Hodel] 612
HEALERS, Drugless: See Cults
HEALTH: See also Disease; Hygiene
agencies, directory of, Ky., 563
American Public Health Association (analysis of statement on medical care), 986; 1262—E; [Dickinson] *1274
Center: See also Medical Center
center planned, New York, 824
centers under National Health Service, [Martin & others] *1427
Citizens' Health Committees, complete organization, Ky., 823
Citizens' Health Planning Committee, W. Va., 1353
color effect on, 694
conditions, Korea, 1263
Councils, 989
department lectures for physicians, N.Y.C., 1267
department opens diagnostic center, New York City, 1505

HEALTH—Continued
department, state, reorganized (W. Va.) 906; (Ill.) 1266
Education, A.M.A. Bureau on: See American Medical Association
education by television, 183—E
Examination: See Physical Examination
federal grants, increase in, 1104
Industrial: See Industrial Health
Information Foundation, consultant to, 907
Insurance: See Insurance, sickness
Inter-Association Committee on Health, A.M.A. approval of statements, 1184
International Health Organization: See World Health Organization
Mental: See Mental Hygiene
minister: Nihad Reshad Belger, Turkey, 1511
Mission: See Medical Mission
museum, American Museum of Health, New York City, 664
museum, Cleveland, 824
National Health Program, quality of medical care in, A.P.H.A. recommendations, 986; 1262—E; [Dickinson] 1274
National Health Service (England): See National Health Service
National Institutes of Health, (GS-16 Civil Service positions) 662; (report of Influenza Information Center) 821; (opens new Isotope Laboratory) 822
Organization of United Nations: See World Health Organization
Philippine health workers (24) in training, 1265
Plans, Lay Sponsored Voluntary: See Medical Service Plans
public health nurses, census, 1503
Public Health Statistics, [Hall] 833—ab
public, measures and rights of individual, [Wassersug] 1197—C
public, U.S. & Mexico border program, 307
resort at Army and Navy General Hospital, Hot Springs, Ark., Council accepted, 555
resort, Buie Health Resort, Council accepted, 555
Rural: See Rural Communities
screening test for 6 conditions, Georgia, 189
Service: See Health, National Health Program; Health, public; Medical Service; Students, health service
soils and, [Maynard] *807
Statistics: See Vital Statistics
U.S. Department of Health, Education and Security (Truman's Reorganization Plan): See United States
U.S.P.H.S. (radiation courses for health officers) 122; (officers certified by American specialty boards) 122; (research grants) 187; (medical mission to Liberia) 187; (new 10 million dollar center in Atlanta) 187; (tuberculosis case finding surveys) 379; (conference on water pollution) 562; (activities under directives of) 662; (regular corps examination for medical officers) 821; (Arctic Health Research Center) 822; (positions open in foreign lands) 822; (medical mission to Indo-China) 903; (medical mission to Greece) 1003; (survey of infection in laboratory workers) 1187; (summer employment of students) 1187; (advanced training for officers) 1187; (all medical schools in cancer teaching program) 1187; (grants for cancer research) 1265; (laboratory diagnosis course) 1265; (chronic disease division) 1263; (tuberculosis sanatorium, Brooklyn) 1350; (clinical pathology laboratory at Atlanta) 1350; (census of public health nurses) 1503
Units: See Health centers
vacations and, [Owen] 1280—ab
World Health Organization: See World Health Organization

HEARING: See also Ear
Loss of: See Deafness
National Hearing Week, 119—E
of airline pilots, [Simonton] 319—ab
reactions to dihydrostreptomycin, [Carr & others] *1223
testing, Hearing Institute to train nurses for, Illinois, 823
tests, survey of hearing abilities, Massachusetts, 823

HEARING AIDS
Maico UE Atomeer, 1069
Radioear All-Magnetic Model 55, 555
Zenith Miniature 75, 440

HEART: See also Arteries, coronary; Cardiovascular System; Pericardium
American Heart Association (grants for heart research available), 754; 1439; (American Council on Rheumatic Fever) 1507
Angiocardiography: See Heart roentgen study
Anomalies: See also Ductus Arteriosus, patent; Heart disease (congenital)
anomalies, atrial septal defect, [Hickam] 315—ab
anomalies, conus artery: third coronary artery, [Schlesinger] 315—ab
anomalies, diagnostic value of cardiac catheterization, [Mannheimer] 320—ab
anomalies, tetralogy of Fallot, Blalock-Taussig operation for, [d'Allaines] 1214—ab

HEART—Continued
anomalies, tetralogy of Fallot in woman 55, [Llan] 1454—ab
Auricular Flutter: See Auricular Flutter
ball thrombus (pedunculated) in, [Strade] *1409
block after myocardial infarction, [Pollitzer] 1208
block, bundle branch, 216
blood and peripheral contrasted, 184—E
blood (residual) in, [Friedman] 1019—ab
catheterization, diagnostic value, [Mannheimer] 320—ab
catheterization, electrograms during, [Rader] 842—ab
catheterization in circulatory failure, 1511
catheterization in congenital heart disease, [Holling] 1453—ab
catheterization, ventricular fibrillation with; recovery, [Southworth & others] *717
clinic, (new opened by the city, Chicago) 304; (adds treatment, W. Va.) 564; (new, Pa.) 906; (opened, Ky.) 1504
committee to develop community heart programs, 825
Disease: See also Cardiovascular Disease; Endocarditis; Pericarditis
disease (benign paroxysmal), frequency, Denmark, 1513
disease (congenital), catheterization in, [Holling] 1453—ab
disease (congenital), causes of death after operation for, [Bahnson] 502—ab
disease (congenital), measles cause? 1126
disease (congenital), murmurs in, 695
disease (congenital), results of operation in 40 cases, [Wilson] 1121—ab
disease (congenital), with septal defects, [Sancetta] 1205—ab
Disease (Coronary): See Arteries, coronary
Disease, Hypertensive: See Blood Pressure, High
disease, life insurance awards for research on, 665
disease (organic), bed pan deaths, [McGuire] 496—ab
disease, preventing recurrent embolism of intracardiac origin, [Cosgriff] *870
disease, pulmonary hypertension in, [Borden] 1282—ab
disease, reducing diet for (reply) [Braunlich] 1222
disease, research careers in, established by American Heart Association, 754; 1439
disease, (rheumatic), auricular fibrillation with, [Askey] 1448—ab
disease (rheumatic chronic), with coronary occlusion, [Gardner] 135—ab
disease (rheumatic), clinico-pathologic study, [Lenel] 1525—ab
disease, (rheumatic) repeated pregnancies in, [Correll] 917—ab
disease, salt free diet for, Denmark, 387
dysfunction in hyperthyroidism, [Griswold] 315—ab
electrocardiogram changes with hypo-and hyperkaliemia, [Darrow & Pratt] *434; *435; (diagram) *436
electrocardiogram in acute nonspecific benign pericarditis, [Evans] *954
electrocardiogram in ventricular fibrillation precipitated by cardiac catheterization, [Southworth & others] *717
electrocardiogram, Master two-step exercise, [Master] 1517—ab
electrocardiogram, Master 2-step, vs. anoxemia tests in coronary insufficiency, 1261—E
electrocardiogram (normal) possible with history of coronary occlusion, 610
electrocardiogram, value in clinical practice, [Carter] *542; *644
electrocardiograph, Burdick, Model Ek-1, 1410
electrocardiograph, Sanborn Viso-Cardiette, Model 51, 1487
electrocardiograph, Technicon Cardiograph, 1069
electrocardiographs, minimum requirement for acceptance by A.M.A. Council, 654
electrograms (intracardiac) during cardiac catheterization, [Rader] 842—ab
electrokymographic conference, (1st), 662
Enlargement: See Heart hypertrophy
Failure: See Heart insufficiency
foreign bodies, cardiotomy for removing bullet in right ventricle (film review), 832
foreign bodies: missiles, war injuries, 1158—E
function in pregnancy after pneumonectomy, [Long & others] *358
hypertrophy, and nephroscierosis, [Switzer] 1447—ab
hypertrophy, chronic cor pulmonale, visammin (kheilin) for, [Rosenman & others] *160
Infarction: See Myocardium
insufficiency, blood iodine in, [Roversi] 209—ab
insufficiency catheterization in circulatory failure, 1511
insufficiency, congestive failure in utero, [Reader] 682—ab

HEART—Continued
insufficiency, dicumarol in failure, [Harvey] 771—ab
insufficiency, during decubitus (patient in recumbent position), [Soloff] *225; [Brunn] 1513—C
insufficiency, use vs. withdrawal of salt in failure, [de Vries] 1525—ab
Irritable: See Asthenia, neurocirculatory
massage through abdominal incision, [Hyde & Moore] *805; (correction), 1268
murmurs in congenital heart disease, 695
Muscle: See Myocarditis; Myocardium
Neurosis: See Asthenia, neurocirculatory
of embryo, registering currents of action on, France, 194
Output: See Blood circulation
phonocardiogram in pseudopericarditis; error in cardiac auscultation, [Schnur] *969
Rate: See Tachycardia
Rhythm: See Arrhythmia
roentgen study, angiocardiography, coarctation of aorta, Italy, 1012
roentgen study, angiocardiography, death after, [Dotter] 1284—ab
roentgen study, angiocardiography in thoracic surgery, [Steinberg] 502—ab
roentgen study, angiocardiography in thoracic tumors, [Weiss] 687—ab
roentgen study, excessive radiation during angiocardiography, [Hills] 773—ab
roentgen study, table for routine angiocardiography, [Axén & Lind] *540
Size: See Heart hypertrophy
Valves: See also Mitral Valve; Pulmonary Valve
ventricle (right), aspirate air from, in embolism, [Stallworth & others] *1250
Ventricular Fibrillation: See Ventricular Fibrillation
World Congress of Cardiology (1st), 1272

HEAT: See also Burns; Tropics
hot baths and spermatogenesis, 781
Production: See Metabolism, basal
Therapeutic Use: See Diathermy; Fever, therapeutic
thermal coagulation of serum in diagnosis, [Huggins & others] *11
warm climates effect on basal metabolic rate, 942

HEBREW University, 25th anniversary, Israel, 914

HEELS, spurs on, 1458

HEIGHT: See Body height

HEINE-Medin Disease: See Poliomyelitis

HEKTOEN Lecture: See Lectures

HELMINTHIASIS: See Tapeworm Infection

HEMAGGLUTINATION: See Agglutinins; Blood groups

HEMATEMESIS
esophageal varices cause, [Garlock] 398—ab

HEMATOLOGY: See Blood

HEMATOMA
of rectus abdominus muscle after electroshock therapy, [Savitsky & Karliner] *431
Subdural: See Meninges

HEMATOPOIESIS: See Blood formation

HEMATOPORPHYRIA: See Porphyria

HEMATURIA
sulfonamide, [Nissen] 1375—ab

HEMIANOPSIA, 216

HEMIPLEGIA
Journey Back, (film review), 490

HEMOCHROMATOSIS
exogenous, after multiple blood transfusions, [Norris & McEwen] *740
familial, with symptoms of hypoadrenalism, [Capretti] 209—ab

HEMOGLOBIN: See also Methemoglobinemia determinations, limits of errors in, 780
formation, role of iron, [Dahl] 1525—ab

HEMOGLOBINURIA, 941
essential; treatment, 215

HEMOLYSIS: See also Anemia, hemolytic
conditioned, new phenomenon of immunity: Brazil, 760
Disease involving, in Newborn: See Erythroblastosis, Fetal

HEMOPHILUS Influenzae Infection: See Influenza

HEMOPOIESIS: See Blood formation

HEMORRHAGE: See also Hematuria; Purpura; Telangiectasia; under names of diseases and organs affected, Medicolegal Abstracts at end of letter M
into arterial wall, [Wartman] 494—ab
Menstrual: See Menstruation
Subarachnoid: See Meninges

HEMORRHOIDS
treatment, injection, 780

HENDERSON, ELMER L.
A.M.A. president's address, *783
portrait of A.M.A. president, 698

HEPARIN
sodium, N.N.R., (Upjohn), 1486
treatment of acute venous thrombosis, [Bauer] 1277—ab
treatment of thromboembolic complications of myocardial infarction, [Schilling] *785
treatment of venous thrombosis and pulmonary embolism, [vander Veer] 836—ab
treatment, regional heparinization in vascular surgery [Freeman] 1285—ab

HEPATIC: See Liver
HEPATITIS: See Liver inflammation
HEPATOCHOLANGIOGASTROSTOMY, [Seifert] 1373—ab
HEREDITY: See also under specific diseases as Cataract; Idiocy, mongolism; Peptic Ulcer; Telangiectasia
of factor causing sudden death, [Leys] 1211—ab
problem, Italy, 829
HERNIA: See also Spine, intervertebral disk
diaphragmatic, esophageal hiatal, [Clerf & others] *169
diaphragmatic, severe anemia secondary to, [Schwartz] 1280—ab
femoral, in female . . . in male, (film review), 832
femoral, 2 unusual cases, [Kazmann & Barnett] *1335
inguinal: delayed versus early ambulation, [Preston] 499—ab
postoperative, disruption of abdominal wounds, [Wolff] 1365—ab
treatment, nylon tissue to cure inoperable eventrations, [Michaux] 603—ab
treatment, skin grafts for, [Dumont] 504—ab
HEROES, War: See Korean War; World War II
HERPES
simplex, laboratory tests in, [Milzer] *219
zoster, aureomycin and chloramphenicol in, [Bolus] 1029—ab
HERXHEIMER REACTION
fatal, after using penicillin in syphilitic pachyleptomeningitis, [Shaffer] 201—ab
HESS Committee report, 988; 1073; 1075; 1082; 1083; 1088; 1090; 1091
HETRAZAN
treatment of ascariasis in children, [Ettel-dorf & Crawford] *797
HEXAMETHONIUM
iodide effect on gastric secretion, [Kay] 929—ab
HICCUP
treatment, 214
HIGH BLOOD PRESSURE: See Blood Pressure, High
HIGH FREQUENCY APPARATUS: See Diathermy
HIGHWAY Accidents: See Automobiles, accidents
HILL-Burton Act: See Hospitals, building program
HIP: See also Femur; Pelvis
dislocation (congenital) in newborn, [Hart] *1299
HIRSCHSPRUNG'S DISEASE: See Colon, megacolon
HISTAMINE
Antihistamine: See also Diphenhydramine (benadryl); Tripelennamine (pyribenzamine)
antihistamine, agranulocytosis from, [Hilker] *741; [Martland & Guck] *742
antihistamine case, countercharges made in, 120—OS
antihistamines, anemia from, [Crumbley] *726
antihistamines for colds, [Hoagland & others] *157; 478; [Shaw] 1368—ab
antihistamines for colds, advertising, 744—E
antihistamines for colds; Erie County Society postcard survey, [Arbesman] 198—C
antihistamines, plus ascorbic acid for cold, [Cowan & Diehl] *421
antihistamines Pyranisamine maleate (neoantergan maleate), N.N.R., (description) 1156; (Merck), 1156
antihistamines, toxic psychosis from, [Yapalate & Rockwell] *428; [Waldman & Pelner] *1334
constituent of nerve fibers, [Von Euler] 143—ab
release of, reaction to small amount of alcohol, 1040
treatment of acute ischemia of brain, [Furmanski] 839—ab
treatment of multiple sclerosis, [Jonez] 767—ab; [Schumacher] *1242
HISTOLOGY: See Cells; Tissue
HISTOPLASMOSIS, [Bass] *1043
HISTORY of Medicine: See Medicine, history
HIVES: See Urticaria
HODGKIN'S DISEASE
course; prognosis, [Videbaek] 1032—ab
diagnosis (differentiate) from lipomelanic reticulosis, [Agress & Fishman] *957
microscopic study of lymph nodes, [Hoffmann] 497—ab
pruritus in, 644—ab
treatment, ACTH, peritonitis during, [Beck] 1518—ab
treatment, nitrogen mustard, [Tsevrenis] 932—ab
treatment, radiologic, [Peters] 918—ab
HOMATROPINE
acute glaucoma induced by, [Linhart] 1020—ab
HOMICIDE: See Murder
HOOVER REPORT
Citizen's Committee for, (opposes Truman's Reorganization Plan) 747; (drive for United Medical Administration) 1264
HORMONES: See also Endocrine Glands; under specific glands as Adrenals; Thyroid
Laurentian Hormone Conference of A.A.A.S., 126
Sex: See Androgens; Estrogenic Substances; Gonadotropins
HORSLEY Research Award: See Prizes
HOSIERY
Astar'te Two-Way Stretch Elastic Stocking, 971
HOSPITALIZATON INSURANCE: See Hospitals, expense insurance
HOSPITALS: See also Medicolegal Abstracts at end of letter M
American Hospital of Paris, (Dr. Delatour to direct) 1107
A.M.A. Committee on Blood Banks, report, 1072—E; 1077
A.M.A. Committee on Hospitals and Practice of Medicine, Hess committee report, 988; 1073; 1075; 1082; 1083; 1088; 1090; 1091
A.M.A. Correlating Committee on Extension of Hospitals and Other Facilities, 988
A.M.A. Correlating Committee on Prepayment Hospital and Medical Service activities, 989; 991
A.M.A. Council on Medical Education and Hospitals: See American Medical Association
A.M.A. resolution on exploitation of services of physicians by, 1077; 1089; 1095
A.M.A. resolution on manual on establishment and operation of department of general practice in, 1077; 1092
Approved: See Hospitals, registered and approved
Army, health resort at, Hot Springs, Arkansas, (Council accepted) 555
Army, in the European and Far East Commands, *101
Army, Tripler, 1502
Arthritis and Rheumatism Foundations grants to, 1267
bed capacity, *27; 117—E
beds occupied, average daily census, *33; 117—E
beds occupied, percentage, *34
Births in: See Hospitals, maternity
Building: See also Hospitals, veterans
building, Ector County Hospital built without financial aid, Tex., 1438
building, new, in Mobile, for Negro patients, Ala., 304
building, new, in Pakistan, 126
building program under Hill-Burton Survey and Construction Act, 185; 379; 1002
cerebral palsy, North Carolina, 306
children's, Norway, 131
children's, statistics, *32
civilian defense aid organized by N.Y.C., 352
Community (county), N. Mex., 1505
Expense Insurance: See also Insurance, sickness; Medical Service Plans
expense insurance, Blue Cross, A.M.A. Committee report, 1073; 1075; 1082; 1083; 1088; 1090; 1091
eye, ear, nose and throat, statistics, *31; *32
Facilities: See Hospitals, service
George Washington U., affiliates with eye bank, 1436
Goldblatt hospital dedicated for cancer research, Illinois, 752
Government: See also Hospitals, Army; Hospitals, building; Hospitals, service; Hospitals, veterans
government, *26; *27; *28; 117—E
Group Hospitalization: See Hospitals, expense insurance
growth, summary of, 1909 to 1949, *26
Industrial: See Industrial Health
Insurance: See Hospitals, expense insurance
Interns; Internships: See Interns and Internships
isolation, statistics, *32
librarian honored, Mrs. Sadie P. Delaney, Ala., 124
Maimonides hospital unit, New York, 190
maternity, births in hospitals, *31; *34; *35; 117—E
maternity, statistics, *31; *32
maternity units, staphylococcic infections in, [Colbeck] 318—ab
medical schools in, Great Britain, [Diehl & others] *1494
Medical Service Plans: See Hospitals, expense plans
Military: See Hospitals, Army
music workshop, Chicago, Illinois, 124
Nassau, lay cornerstone, N.Y.C., 1437
Navy, health resort at, Hot Springs, Ark., 555
Navy, memorial hospital given to Newfoundland, 1003
Neuropsychiatric: See Hospitals, psychiatric
Noland, dedication, Ala., 380
Norwegian radium hospital, 757
Number, May 6, 1950, page *25
Number of: See Hospitals, service
Nurses; Nursing; See Nurses and Nursing
orthopedic, statistics, *32
patients, average length of stay, *34
patients, number admitted, *30; 117—E
HOSPITALS—Continued
Penrose, cancer seminar, Colo., 1351
practice of medicine by, A.M.A. resolution on, 1073; 1080
problem, Belgium, 830
program, Puerto Rico, 906
psychiatric, crowding in state mental hospitals, 1350
psychiatric, Directory of Psychiatric Facilities, Illinois, 124
psychiatric, Northville State Hospital, Mich., 1437
psychiatric, St. Elisabeth's, interns for, wanted by Civil Service Commission, 562
psychiatric, statistics, *31; *32
public spending, under National Health Service, England, 310; [Martin & others] *1423
Records: See Medical Record Librarians
regional hospital plan expanded, N. Y., 1505
registered and approved by A.M.A., essentials of approved residencies and fellowships, 995; 1092
registered, A.M.A. resolution on unified inspection and evaluation of, 1081; 1092
registered by A.M.A., list of, *38; 1199
registered; policy of Armour Laboratories in distributing ACTH, [Mote] 831—C
Residents; Residencies: See Residents and Residencies
Salmonella infections (inapparent) in, [Felsen & others] *1135
Service: See also Hospitals, expense insurance; Hospitals, maternity service; Medical Service Plans
service, facilities by states and by control, (government) *26; *27; *28; 117—E; (nonprofit hospitals) *29; 117—E; (proprietary) *30
service facilities by states and by type of service, *31; *32
service, governmental and nongovernmental, *26; *27; 117—E
service in the United States, *25; 117—E
service, number, size and classification, *26
Service Plans: See Hospitals, expense insurance; Medical Service Plans
service, prices vs. cost of living, [Dickinson] *1198; 1160—E
service under National Health Service, England, [Martin & others] *1423
staff, A.M.A. resolution on appointing only specialty board diplomates to, 1092; 1093
staff, general practitioner no longer has access to hospital, Great Britain, [Diehl & others] *1498
staff, integration of general practitioners into; report of A.M.A. Committee, 981
staff meetings, A.M.A. resolution on, 1081; 1092
State: See Hospitals, psychiatric
Statistics: See also Hospitals, beds; Hospitals, service; etc.
statistics WHO Committee on, 383
studies, money for, 1348
Survey and Construction Act: See Hospitals, building program
Tuberculosis: See Tuberculosis hospitals
veterans, [Kracke] *1322
veterans, A.M.A. resolution on medical and hospital care of veterans with non-service-connected disabilities, 1099; 1101
veterans, A.M.A. resolutions on medical care of veterans, 1076; 1088
veterans, appointments, 1503
veterans, chiropractic care in, 659
veterans, Fort Miley, A.M.A. program at, 257
veterans, greatest hospital-building program in all history, 303
veterans, neuropsychiatric hospital at Van Nuys, Calif., 661
veterans, new, (illustrated) 123
veterans, New York loans 740 beds in hospital for, 188
veterans, Northport, 1350
veterans, program in Senate hands, 120—OS
veterans research hospital, part of Northwestern U. Medical Center, 304
veterans, Roosevelt hospital for mental patients dedicated, (illustrated) 751
HOUSE: See Floors
HOUSTON Clinical Session: See American Medical Association
HUBBARD, L. RON, dianetics, 1220
HUMIDIFIER, DeVilbiss Steam Vaporizer, 1487
HUNGER: See Appetite
HURD-MEAD Lecture: See Lectures
HURLER'S DISEASE
[Hurtado] 144—ab
HUXLEY-Fairchild Chest Respirator, 1157
HYALINE
desoxycortisone induces hyalinosis, [Selye] 685—ab
hyaline-like material in lungs in infants, [Milier] 771—ab
HYALURONIDASE
in subretinal fluid, [Godtfredsen] 207—ab
HYDANTAL
treatment plus phenobarbital of epilepsy, [Pence] 1210—ab
HYDATID DISEASE: See Echinococcosis
HYDROGEN ION CONCENTRATION: See Cerebrospinal Fluid

HYDROMA: See Hygroma
HYDROPHOBIA: See Rabies
HYDROPS, Endolymphatic: See Ear
HYDROTHERAPY: See Baths
17-HYDROXYCORTICOSTERONE (Compound F)
  treatment of rheumatoid arthritis, [Polley & Mason] *1475
HYDROXYCOUMARIN, Methylene Bis: See Dicumarol
HYGIENE: See also Health
  Industrial: See Industrial Hygiene
  Mental: See Mental Hygiene
  problems in Arctic and subarctic, [Young] 1204—ab
  Social: See Social Hygiene
HYGROMA
  possible, 940
HYPERCHOLESTEREMIA: See Blood cholesterol
HYPEREMESIS Gravidarum: See Pregnancy, vomiting in
HYPEREMIA: See Pathergy
HYPERHIDROSIS: See Sweat
HYPERKALIEMIA: See Blood potassium
HYPERLIPEMIA: See Blood fats
HYPERPARATHYROIDISM: See Parathyroid
HYPERPYREXIA: See Fever, therapeutic
HYPERSALIVATION: See Saliva
HYPERSENSITIVITY: See Allergy
HYPERTENSION: See Blood Pressure, High
HYPERTHYROIDISM: See also Goiter
  antithyroid agents, mode of action, 1488—E
  cardiac dysfunction in, [Griswold] 315—ab
  diagnosis, radioiodine test, [Jaffe & Ottoman] *515
  Marañon syndrome, Spain, 758
  tetany may follow hypermetabolism due to thyroid medication, 1197
  treatment, 1-methyl-2-mercaptoimidazole (tapazol), [Reveno & Rosenbaum] *1407
  treatment, propylthiouracil, [Mazzei] 208—ab
  treatment, radioactive iodine, [Feitelberg] 768—ab; [Gordon & Albright] *1129
HYPERTROPHY: See Splenomegaly; under specific organs as Breast; Heart; Prostate; Tonsils
HYPERVITAMINOSIS: See Vitamin A; Vitamins D
HYPNOTHERAPY
  in frigidity, [Kroger & Freed] *531
  in stammering, 779
HYPOADRENALISM: See Adrenals
HYPOCHLOREMIA: See Blood chlorides
HYPODERMIC
  Injections: See Injections
  syringe for inducing skin anesthesia for venesection, [Wolf & others] *431
HYPOGLYCEMIA: See Blood sugar
HYPOGONADISM: See Gonads
HYPOPARATHYROIDISM: See Parathyroid
HYPOPHYSIS: See Pituitary
HYPOSENSITIZATION: See Allergy
HYPOTENSION: See Blood Pressure, low
HYPOTHYROIDISM
  iodine deficiency, [Youmans] *1256
  radioactive iodine causes, [Blumgart] 1451—ab
HYPOVITAMINOSIS: See Vitamins deficiencies
HYSTERECTOMY: See Uterus
HYSTEROSALPINGOGRAPHY: See Oviducts roentgen study; Uterus roentgen study

I

I. Q.: See Intelligence Quotient
ICE Anesthesia: See Anesthesia
ICTERUS: See Jaundice
IDENTIFICATION
  of exchanged identical twins, reciprocal skin homografts for, [McIndoe] 685—ab
  of medical personnel and international insignia, 1014
IDIOCY
  amaurotic, 214
  mongolism and heredity, [Bredmose] 144—ab
  mongolism, empiric risk figures in, [Böök & Reed] *730
  mongolism in child no relation to rubella preceding pregnancy, 1534
IDIOSYNCRASY: See Allergy
ILEITIS
  regional (Crohn's), [Kiefer] 680—ab
  regional, recurrence, [Smets] 1373—ab
  terminal, 150
ILEOSTOMY
  bag, disposable, [Gladstone & Turell] *894
ILEUM
  painful intestinal spasm: ileojejunitis, 611
ILLEGAL Operation: See Abortion, criminal
  Practitioners: See Quackery
ILLINOIS: See Chicago
ILLNESS: See Disease; Patients
ILLUMINATION: See Lighting
ILLUSTRATIONS; Illustrators: See Art
IMMIGRANTS: See also Displaced Persons
  Physicians: See Physicians, foreign
  tuberculosis in, Israel, 671
IMMUNE
  reaction to smallpox vaccination, [Benenson] *1238
IMMUNITY: See also Antibodies; and under names of specific diseases as Tularemia
IMMUNITY—Continued
  new phenomenon of "conditioned hemolysis", Brazil, 760
IMMUNIZATION: See also under names of specific diseases as Whooping Cough
  BCG: See Tuberculosis immunization
  before going to Europe, 405
  of infants and inherited antibodies, [Greenberg] 681—ab
  triple, alum cysts after, 1380
IMPLANTATION: See Pituitary; Placenta
IMPOSTORS
  Dr. Benton of Baltimore, 382
IMPOTENCE
  sex ability after orchiectomy, 514
IMPREGNATION: See also Coitus; Pregnancy
  artificial insemination, 511
  artificial insemination without wife's knowledge, 327
  Preventing: See Contraception
INANITION: See Nutrition deficiency
INCLUSION BODIES: See Cells
INCOME
  physicians, from Health Insurance Plan of Greater New York, [Baehr] *638; [Kleefield] 1445—C
  physicians, survey, response, 376—E; 983; 1088
  physicians, under National Health Service, England [Martin & others] *1429
  Tax: See Tax, income
INDIANS, AMERICAN
  A.M.A. resolution on tuberculosis among, 1161
INDIGENT: See Medically Indigent
INDIGESTION: See Flatulence
INDO-CHINA
  mission to, 903
INDUSTRIAL DERMATOSES
  iodoacetic acid cause, [Marriott] 761—C
  streptomycin cause of, in physicians, nurses, etc., [Schäfer] 504—ab
INDUSTRIAL DISEASES: See also Industrial Dermatoses; Workmen's Compensation
  aerial spraying of insecticides, new hazards from, 1158—E
  beer, "cellulose dope" and paralysis, 513
  beryllium granulomatosis, effect of ACTH, [Kennedy] 1518—ab
  beryllium workers, chronic pulmonary granulomatosis in, [Robert] 1277—ab
  butane gas relatively harmless, 942
  cancer of skin caused by oils in engineering processes, [Cruickshank] 773—ab
  dry cleaning, toxic products used in cause hypertension and acute nephritis? 1220
  dry cleaning, carbon tetrachloride nephrosis, [Farrier & Smith] *965
  lead absorption, porphyrin test for lead absorption, 940
  photographic retouching materials, 149
  pneumatic hammers effect on fingers, 514
  Pneumonoconiosis: See Pneumonoconiosis
  porphyrins in, [Maloof] 838—ab
  radiation hazard exposure of physicians in irradiating nasopharynx, [Rubin] 1203—ab
  radiation hazards of radiotherapeutic staff, [Nuttall] 848—ab
  radioactive static eliminators in printing plant, [Berman] 1451—ab
  respiratory tracts of alabaster workers in Volterra, [Manfredi] 851—ab
  rosin allergy in violinist, 1222
  Silicosis: See Pneumonoconiosis
  virus hepatitis; hazard for medical personnel, [Kuh & Ward] *631
INDUSTRIAL HAZARD: See Industrial Diseases
INDUSTRIAL HEALTH
  A.M.A. Correlating Committee on Medical Care for Industrial Workers, 989
  A.M.A. resolution on medical relations in Workmen's Compensation, 1080, 1095
  A.M.A. Section on Medicine in Industry, resolution requesting, 1093; 1094
  courses in occupational health and rehabilitation, 383
  efficiency of food intake, [Haldi] 138—ab
  employment of hard of hearing, 191
  employment of physically handicapped, 974
  Environmental Medicine Department at Johns Hopkins, 483
  hospitals, statistics, *31; *32
  lung function in coal miners, [Motley] 502—ab
  medical care under United Mine Workers Welfare and Retirement Fund, 819; [Morrison] 1286—ab
  medicine fellowship program by Atomic Energy Commission, 1265
  medicine today, [Rowntree] 924—ab
  plans, 990
  vacations and health, [Owen] 1280—ab
INDUSTRIAL HYGIENE
  protecting pilots in aerial spraying insecticides, 1158—E
  protecting workers handling uranium, 1070—E
INDUSTRIAL POISONING: See Industrial Dermatoses; Industrial Diseases
INEBRIETY: See Alcoholism
INFANTILE PARALYSIS: See Poliomyelitis
INFANTS: See also Children; Infants, Newborn; Pediatrics; under names of specific diseases
INFANTS—Continued
  accidental suffocation (alleged) in, [Bowden] 1031—ab
  feeding, Beech Nut products, (cereal) 24; (strained vegetables) 1415
  feeding (bottle), [Schwartz] 490—C
  feeding (breast), [Watson] 1202—ab
  feeding, Clapp's products, 24; 970; 1415; 1486
  feeding: "demand" vs. "schedule," 779
  feeding, Gerber's products, 24
  feeding, Lactum; Dalactum, 1415
  feeding, milk for, 1040
  feeding, Van Camp Sea Food products, 24
  growth under abnormal conditions, Israel, 671
  habit disorder in: infant strikes head against mattress in sleep, 694
  laryngeal obstruction in, factors responsible, [Holinger & Johnston] *1229
  malignant melanoma in infant, placental transmission possible? [Dargeon] 1118—ab
  meningitis caused by bacterium coli, [Grundler] 504—ab
  pacifiers and sucking instinct, 1040
  premature, amino acid supplement in feeding, [Henckel] 604—ab
  premature, retrolental fibroplasia, 374—E; [Speert] 676—ab
  pulmonary hyaline-like material in, [Miller] 771—ab
  Samonella infections (inapparent) in hospitals, [Felsen & others] *1135
  Test-Tube: See Impregnation, artificial
  toxoplasmosis, [Rodney] 1282—ab
  vitamin A poisoning (chronic), [Caffey] 1283—ab
  vitamin D requirement of normal infants, [Jeans] *178
INFANTS, NEWBORN: See also Fetus
  Birth Process: See Labor
  Birth Rate: See Vital Statistics, birth rate
  congenital dislocation of hip in, [Hart] *1299
  Erythroblastosis in: See Erythroblastosis, Fetal
  exchange transfusions and toxicosis, France, 194
  Ophthalmia in: See Conjunctivitis, infectious acute
  sciatic palsy, [Fahrni] 1211—ab
  sickle cell anemia, [Frazier & Rice] *1065
INFARCTION: See Myocardium
INFECTION: See also Immunity; Staphylococcus; Streptococcus
  focal, cause of arthritis? 214
  in laboratory workers, survey by U.S.P.H.S., 1187
  of Blood: See Bacteremia
  of soft tissue, aureomycin in, [Logan] 837—ab
  Prevention: See also Antiseptics; Germicides; Sterilization, Bacterial
  simultaneous double, meningitis due to, in children, [Vaden & others] *1402
INFECTIOUS DISEASE: See Epidemics; under names of specific infectious disease
  Preventing Spread of: See Immunization; Vaccination
INFECTIOUS HEPATITIS: See Liver inflammation
INFECTIOUS MONONUCLEOSIS: See Mononucleosis, Infectious
INFERIORITY
  constitutional, in neurocirculatory asthenia, [Vergara] 673—C
INFERTILITY: See Sterility
INFLAMMATION: See under names of specific diseases and organs as Breast; Ileitis; Pancreas; Phlebitis; Stomach
INFLUENZA
  anti-hemophilus type B serum (rabbit), N.N.R., (description) 1485; (Squibb), 1485
  diagnosis, laboratory tests, [Milzer] *219
  Information Center at National Institutes of Health, 821
  meningitis, anti-hemophilus influenzae type B serum (rabbit), N.N.R., 1485
  meningitis, chloramphenicol for, [Prather & Smith] *1495
  meningitis due to double infections in children, [Vaden & others] *1402
  meningitis, streptomycin plus sulfadiazine, aureomycin or rabbit serum for, [Appelbaum & Nelson] *715
  meningitis (type B) streptomycin, sulfadiazine or serum for, [McMorrow] 926—ab
  metabolic disorders in, [Baur] 1034—ab
  National Influenza Strain Study, 821
  of Parrots: See Psittacosis
  treatment, aureomycin, [Finland] 592—ab
  virus, culture in dead chick embryos, [Weiss] 1206—ab
  virus vaccines, types A and B, protamine concentrated and refined, N.N.R., (Sharp & Dohme) 1486
INHALATION: See also Aerosols; Atomizer; Oxygen therapy
  Aerohalor (powder inhaler), 1487
  Armour Insufflator, 1069
  of Dust: See Pneumonoconiosis
INHERITANCE: See Heredity

INJECTIONS: See also under names of specific substances
hypodermic, mixing antigens for, 610
Intravenous: See also Blood Transfusion
intravenous nutrition with dextrose, amino acids and alcohol, [Rice] 920—ab
intravenous, of procaine, [Grunert] 1526—ab
intravenous, of procaine for unusual reaction to penicillin, [Felder & Felder] *361
intravenous, vitamins given by vein, 782
intravenous, postoperative nutrition with human serum albumin, [Fletcher] 684—ab
local paralysis in children after, [Martin] 1370—ab
Spinal: See also Anesthesia, spinal
spinal, of toxoid for diphtheritic paralysis, [Thiele] 1121—ab
treatment of hemorrhoids, 780
INJUNCTIONS: See Medicolegal Abstracts at end of letter M
INJURIES: See Automobiles, accidents; Fractures; Trauma; Wounds; under specific organ or region as Brain; Kidneys
War: See Korean War
INOCULATION: See Immunization
INSANE ASYLUM: See Hospitals, psychiatric
INSANITY: See Dementia Precox; Mental Disorders
INSECTICIDES
hazards from aerial spraying and dusting, 1158—E
INSECTS: See also Bees; Wasps
caripito itch caused by dust from wings of moths, Norway, 131
INSEMINATION: See Impregnation, artificial; Pregnancy
Preventing: See Contraception
INSIGNIA
international, 1014
INSTITUTE: See also Societies and Other Organization at end of letter S
of Living acquires Norman Library of Psychiatric Literature, 1105
of Ministry to the Sick at Johns Hopkins Hospital, 1437
of Nuclear Studies, Tennessee, 564
of Physical Medicine and Rehabilitation, cornerstone, N.Y.C., 381
on Medicolegal Problems, California, 304
on Social Aspects of Medical Care, Missouri, 305
on Treatment of Atomic Injuries, New York City, 305
INSTITUTION: See also Hospitals; Schools for Tuberculosis Research, Chicago, 380
INSTRUCTION: See Education; Education, Medical; Schools; University
INSTRUMENTS: See Balloon; Hearing Aids; Needle; Speculum; Stethoscope; Syringe
INSUFFLATOR
Armour, 1069
INSULIN
test for vagus section, [Brooke] 207—ab
test, results after vagotomy, [Weinstein] 842—ab
INSULOMA
with absence of hypoglycemia, [Fries] 931—ab
INSURANCE: See also Workmen's Compensation; Medicolegal Abstracts at end of letter M
disability (total and permanent) included in Social Security Extension bill, 1491
Health: See Insurance, sickness
Hospitalization: See Hospitals, expense insurance
Life Insurance Medical Research Fund Awards for research on heart disease, 665
life, rejected for: otosclerosis, 1534
Medical Society Medical Service Plan: See Medical Service Plans
sickness, A.M.A. Reference Committee on Insurance and Medical Service, 1101
sickness, A.M.A. resolution on evaluation of policies, 1077; 1101
Sickness, Beveridge Plan: See National Health Service
sickness (compulsory, 819; [Irons] 977
sickness (compulsory) responsibility of American medicine in fight against, [Henderson] *783
sickness (compulsory), Better Medical Care That You Can Afford; Truman plan, 377
sickness (compulsory), A.P.H.A.'s statement on medical care analyzed, 986; 1262—E; [Dickinson] *1274
sickness, Health Insurance Plan of Greater New York, first 3 years, [Baehr] *637; 658—E; [Kleefield] 1445—C
sickness, legislation, 659
sickness, National Health Service, England: See National Health Service
sickness, plans, Australia, 569
sickness (voluntary), A.M.A. advertising program to promote, 744—E; 987; 1081; 1093; 1098
sickness (voluntary), Regional Conference on Voluntary Health Insurance, 120; 989; 990
INTELLIGENCE: See also Mental Deficiency
quotient after erythroblastosis fetalis, [Gerver] 843—ab
INTER-AMERICAN: See Pan American
INTERCOURSE, Sexual: See Coitus
INTERNAL MEDICINE
International Congress of, Sept. 11-14, Paris, 1268
Swiss Society of, 1013
INTERNAL SECRETION, Glands of: See Endocrine Glands
INTERN: See Interns and Internships
INTERNATIONAL: See also United Nations; World Health Organization; list of Societies at end of letter S
Conference on Streptomycin Therapy, France, 194
Congress of Amebiasis, 1111
Congress of Criminology (2nd), 1272
Congress of Gastrologic Associations (1st), Spain, 1014
Congress of Gerontology (1st), Belgium, 191; 759; 1444
Congress on Asthma (2nd), France, 195
Congress on Diseases of Chest (1st), 1008
Congresses of Medical Sciences, Council for Coordination, 1111
Days of Phlebology, 1272
Medical and Surgical Film Institute, Switzerland, 196
medical law, course in, 1358
Office of Documentation of Military Medicine (13th session), 1013
Physicians Art Exhibit (1st), Paris, 1193
Refugee Organization of U.N., [Burgess] *413
syphilis seminars, 907
Travel Service tour to San Francisco convention, 479—OS
Union Against Tuberculosis conference (1st), 907
Union of Students, relation to Association of Internes and Medical Students, 994
INTERNE: See Journals
INTERNS AND INTERNSHIPS: See also Residents and Residencies
A.M.A. Committee on General Practice report on services being dissipated, 981
A.M.A. Committee on Training of Interns, (report) 1097
Army medical interns in service, 1502
Association of Internes and Medical Students, investigation by A.M.A. Council, 992; 1092
Hospitals Approved for: See Hospitals, registered and approved
licensure requirements, *453; *459
medical schools requiring, *453; *459
St. Elisabeths Hospital (Washington, D. C.) needs, 562
U. S. Navy, openings available, 187; 661
INTERVERTEBRAL DISKS: See Spine
INTESTINES: See also Colon; Duodenum; Gastroenterology; Gastrointestinal Tract; Jejunum; Peritoneum; Rectum; etc.
absorption of rutin and related flavones, (Council report), [Clark & MacKay] *1411
Disease: See Appendicitis; Colitis; Diarrhea; Dysentery; Typhoid
diverticulum, strangulated Meckel's, in femoral hernia, [Kazmann & Barnett] *1335
eosinophilic granuloma of jejunum, [Polayes & Krieger] *549
Flatulence: See Flatulence
foreign bodies, swallowed Miller-Abbott tube, [Hanselman & Theis] *551
hemorrhage and necrosis after penicillin, 1222
Hernia: See Hernia
Inflammation: See also Ileitis
inflammation, Shigella enteritis, chloramphenicol orally vs. streptomycin, polymyxin, sulfadiadiazine, [Ross & others] *1459; (also aureomycin, footnote 4) *1460
Intussusception: See Intussusception
motility, effect of antispasmodic drugs, [Chapman & others] *627
obstruction, Clostridium toxin identified, [Anderson] 317—ab
Parasites: See also Ascariasis; Tapeworm Infection
parasites, (reply) [Stilwell] 860
spasm, painful: ileojejunitis, 611
surgery, biliary-intestinal anastomosis, 1196
surgery, removal of 6 feet in mesenteric vascular occlusion, [Koon] *1408
Trichomonas infection (rare), 1298
INTOXICATION: See Alcoholism; Medicolegal Abstracts at end of letter M
INTRAVENOUS Injection: See Injections
INTRAVENTRICULAR BLOCK: See Heart block, bundle branch
INTUSSUSCEPTION
aberrant pancreatic tissue with, [Keeley] 1117—ab
INVALIDS; Invalidism: See Disease, chronic; Patients
INVESTIGATORS: See Research
IODATE: See Sodium Iodate
IODINE
antithyroid agents, 1488—E
blood iodine in heart insufficiency, [Roversi] 209—ab
deficiency, [Youmans] *1256
Dusting Powder: See Vioform
radioactive, hypothyroidism produced by, [Blumgart] 1451—ab
radioactive, test for thyroid function, [Jaffe & Ottoman] *515
radioactive, treatment of hyperthyroidism, [Feitelberg] 768—ab
IODINE—Continued
radioactive, treatment of thyrotoxicosis, [Gordon & Albright] *1129
IODIZED Salt: See Salt
IODOCHLOROHYDROXYQUINOLINE (vioform) treatment of amebiasis, 781
ION TRANSFER
removal of lead from skin, 1534
IRAN
medical mission to, 903
IRON
anemia and, nutrition surveys in Tennessee, [Youmans] 394—ab
deficiency, [Youmans] *1252
loss through skin, [Adams & others] 391—C
metabolism: formation of erythrocytes and hemoglobin, [Dahl] 1525—ab
treatment, intravenous, in hypochromic anemia, [Gerbrandy] 505—ab
treatment, staining of teeth after ferrous sulfate, 942
IRONS, ERNEST E., A.M.A. president address, 977
IRRADIATION: See Radiation; Radium; Roentgen Rays; Ultraviolet Rays
ISAACS Fellowship: See Fellowships
ISONIPECAINE: See Meperidine
ISOTOPES: See Radioactive Isotopes
ISRAEL
foreign letter from, 671; 1358
ITALIAN
Congress on Antibiotics (2nd), 1443
Society of Anesthesiology, 830
Society of Obstetrics and Gynecology (40th congress) 387
Society of Pediatrics (20th congress) 129
Society of Phthisiology (9th congress) 196
ITCH
Caripito, caused by dust from wings of moths, Norway, 131
ITCHING: See Pruritus
IVY, Poison: See Rhus

J

J.A.M.A.: See American Medical Association, Journal
JACKSON MEMORIAL LABORATORY
record enrolment, Maine, 1005
JACOBY Award: See Prizes
JAMAICA GINGER
paralysis, Dr. Maurice I. Smith study on etiology, [Viets] 391—C
JAPAN
A.M.A. convention trip to Japan, invitation to Tokio, [Sams] 302—OS
atom bomb effect on birth rate, 1296
fellows from: Drs. Hideo Kunabe and Tomio Ogata, 379
JAUNDICE
blood proteins in, [Stroebe] 1216—ab
Epidemic: See Liver inflammation
etiology: arsphenamine, [Gennerich] 686—ab
of newborn, differentiated from sickle cell anemia, [Frazier & Rice] *1065
serum transmitted by tattooing needle, [Roberts] 498—ab
JAWS: See Teeth
JEJUNUM
eosinophilic granuloma, [Polayes & Krieger] *549
painful intestinal spasm: ileojejunitis, 611
surgery in gastrojejunal ulcer, [Stevens & Kipen] *1138
JEWELRY: See Earrings; Gold rings
JEWS: See also Hebrew University; Israel
penile cancer in, prevention, [Bleich] *1054
tuberculosis in new immigrants, Israel, 671
JOBS: See Industrial Health
JOHNS HOPKINS UNIVERSITY
Hospital, institute of ministry to the sick, 1437
new environmental medicine dept., 482
JOINT Commission for Improvement of Care of Patient, 1506
JOINTS: See also Arthritis; under names of specific joints as Hip; Wrist
manifestations of leukemia in children, [Marquézy] 774—ab
Tuberculosis: See Arthritis, tuberculous
JONES Lecture: See Lectures
JONES MULTI-MOTOR-BASAL METABOLISM Apparatus, 812
JOURNALS: See also Library; Newspapers
Archives published by the A.M.A.: See American Medical Association journals (specials)
Archivos Ibero-Americanos de Historia de la Medicina, first issue, Spain, 670
Bulletin for Woman's Auxiliary cancelled, 984; 1088
bulletins of various medical societies, 990
Circulation (dedicates issue to Dr. Herrick), 564
Graphics, of Association of Medical Illustrators, 382
Interne, investigation by A.M.A. Council, 992
Journal of Allergy new editor: Dr. Alexander, 1506
Journal of American Medical Association: See American Medical Association
Journal of Comparative Neurology, (editor retires), 382
Journal of Oklahoma State Medical Association, new address, 1506

JOURNALS—Continued
Kentucky Medical Journal, improvements, 482
medical, distributed for foreign relief, 382; 1353
Revista Colombiana de Obstetricia y Ginecologia, first issue, 666
South African Journal of Clinical Science, new, 666
Wisconsin Medical Journal, (Dr. Baldwin, new editor), 191
JULY Fourth: See Fourth of July
JURISPRUDENCE, MEDICAL: See Medical Jurisprudence

K

KAHN TEST, false positive? 1127
KALA-AZAR: See Leishmaniasis
KELP
visual difficulties from, 1297
KENDALL Compound A: See Dehydrocorticosterone
Compound F: See Hydroxycorticosterone
KENNY Method: See Poliomyelitis, treatment
KENTUCKY Medical Journal: See Journals
KERATOCONJUNCTIVITIS
epidemic, laboratory tests in, [Milzer] *219
sicca, [Henderson] 765—ab
KERATOPLASTY
results, [Roberts] 1020—ab
KERATOSIS
of nipples, 328
KEROSENE
intoxication, [Reed] 1202—ab
KERR, WILLIAM J., portrait, 904
KETOSIS: See Acidosis
17-KESTOSTEROIDS
in Urine: See Urine
KEYES Memorial Medal: See Prizes
KHELLIN (visammin)
clinical use, [Rosenman & others] *160
treatment of angina of effort, [Dewar] 773—ab
KIDNEYS: See also Urinary System
Artificial: See Peritoneum irrigation
blood circulation, Colombia, 672
clearances of urea and uric acid in toxemia of pregnancy, [Chesley] 1516—ab
disease, carbon tetrachloride nephrosis; frequently undiagnosed cause of death, [Farrier & Smith] *965
disease, edema in, [Boyle] 676—ab
disease, lower nephron nephrosis, [Mirán Miranda] 604—ab; [Dausset] 767—ab
disease, nephropathia epidemica (Myhrman), [Muri] 1214—ab
disease, nephrotic syndrome, [Barness] 927—ab
disease, lower nephron nephrosis sulfonamide anuria, [Oram] 1375—ab
disease, treatment of anuria in lower nephron nephrosis, [Baden] 1375—ab
Excision: See Kidneys, tuberculosis
Glomeruli: See Nephritis, glomerular
Inflammation: See Nephritis
injuries, [Sargent] 598—ab
injuries in region of; retrograde pyelography, 1457
mechanisms of salt conservation, 1059—ab
necrosis (cortical symmetric) in childhood, [Campbell] 320—ab
necrosis of papillae, [Robbins] 134—ab
Pelvis: See Pyelography; Pyelonephritis
reactions to dihydrostreptomycin, [Carr & others] *1223
Sclerosis: See Nephrosclerosis
Trauma: See Kidneys injuries
tuberculosis, nephrectomy for, [Oppenheimer] 203—ab
tumors, sarcoma 16 years after pyelography, [Zollinger] 604—ab
KILLING, Mercy: See Death, euthanasia
KNUDSEN Award: See Prizes
KOESSLER Fellowship: See Fellowships
KOMORA, PAUL O., death, 1267
KON-TiKI EXPEDITION
health problems, during crossing Pacific, 1195
KOREAN WAR
casualties in, 1263
compulsory induction of physicians, 1347
heroes: first Purple Heart, 1349
health conditions in Korea, 1253
medical missionary (Dr. Moffett) requests immediate active duty, 1435
registration of physicians for service, 1416—E
KRACKE, ROY R., mementos to Medical College of Alabama Library, 1266
KRETSCHMER'S Wheat Germ, 1486
KUNABE, HIDEO, fellow from Japan, 379

L

LABELS
read the labels, 899—E
LABOR: See also Abortion; Cesarean Section; Fetus; Hospitals, maternity; Infants, Newborn; Maternity; Obstetrics; Pregnancy; Puerperium
Anesthesia in: See Anesthesia
Complications: See also Eclampsia
complications, aureomycin for, [Guilbeau & others] *520
complications, pulmonary embolism caused by amniotic fluid, [Schenken] 836—ab
LABOR—Continued
Premature: See also Infants, premature
premature, painless vaginal bleeding and Rh factor, 1381
presentation, persistent posterior position of occiput, [Macgregor] 686—ab
LABOR, MANUAL: See Work
LABORATORIES
antibiotic, at Hektoen Institute named for Dr. Volini, 1351
clinical pathology, Atlanta, Ga., 1350
commercial, vs. New York State Society of Pathologists, court decision, 1417—E
cytology, vaginal, development, [Gusberg] 1516—ab
diagnosis of parasitic diseases, course on, Ga., 662
diagnosis (routine) in virus and rickettsial diseases, [Milzer] *219
diagnosis, USPHS course in, 1265
field laboratory for study of encephalitis, Colo., 1188
Isotope Laboratory opened, 822
Jackson Memorial Laboratory enrolment, Maine, 1005
reports, antitoxin given before, 407
U. S. Army research, select site for, 750
Workers: See Technologists
Yale, for cancer research, 1105
LACTATION: See also Milk, human
breast feeding, [Watson] 1202—ab
continued, for 3¼ years after delivery, 512
increasing secretion of breast milk, 512
suppression by ethinyl estradiol, [Stewart] 845—ab
LACTOBACILLUS casei factor (Synthetic): See Acid, folic
LACTUM, 1415
LAMINECTOMY: See Spine surgery
LAMPS: See Ultraviolet Rays, lamps
LAND: See Clay; Real Estate; Soil
LANGUAGE: See Terminology
LARYNGITIS Tuberculous: See Larynx tuberculous
LARYNX: See also Otorhinolaryngology; Throat
cancer, Norway, 195
obstruction in infants, factors responsible, [Holinger & Johnston] *1229
tuberculosis, streptomycin in, [Lieberman] 920—ab
tumors, recurrent papilloma, 405
LASKER Award: See Prizes
LATEX
allergy to surgeon's rubber gloves, 1296
LAW in Relation to Medicine: See Medical Jurisprudence
LAWS AND LEGISLATION
A.M.A. Coordination Committee on Legislation, 983; 1097
federal A.M.A. resolutions opposing bills favoring federal grants-in-aid, 1083, 1096
federal bills for drafting physicians, 1418
federal, important bills, 185; 478; 659; 747; 819; 902; 1491
federal, lobbying, 1348
federal, Social Security extension bill (H. R. 6000), 185; 819; 1348; 1491
Harrison Narcotic Act: See Harrison Narcotic Act
state, pasteurization law in effect, Minn., 1106
state, weekly summary, 186; 302; 378; 479; 749; 820
U.S. Department of Health, Education and Security, (Reorganization Plan no. 27): See United States
LAXATIVES: See Cathartics
LEAD
absorption (industrial), technic of porphyrin test, 940
poisoning in pregnancy, professional secrecy, Denmark, 130
poisoning, porphyrins in, [Maloof] 838—ab
removal from skin by using machine with positive and negative pole, 1534
LEAGUE OF NATIONS: See United Nations
LECTURES
Bertner, 1188
Curran, 124
Garrison (Fielding H.) 382
Harvey (8th), 125; (1st) 1505
Hektoen, 189
Hurd-Mead, 664
Jones orthopedic, 190
McGraw, 305
New York City health department lectures for physicians, 1267
Oppenheim memorial, 124
Wadsworth (Augustus B.) (1st), 381
LEG: See Legs
LEGAL MEDICINE: See Laws and Legislation; Medical Jurisprudence; Medicolegal Abstracts at end of letter M
LEGISLATION: See Laws and Legislation
LEGS: See also Extremities; Foot; Hip
affected leg held straight in intermittent claudication, [Naide] *968
Amputation: See Amputation
Artificial: See Limbs, Artificial
dermatitis in soldiers during World War II, 328
Fractures: See under names of specific bones as Femur
LEGS—Continued
stasis syndrome in lower leg, [Bauer] 766—ab
tabetic pains, 406
Ulcer: See Ulcers; Varicose Veins
LEISHMANIASIS
kala-azar in Turkey, 1112
LEMKE, WILLIAM, death, 659
LENS, CRYSTALLINE
Opacity of: See Cataract
retrolental fibroplasia, 374—E; [King] 203—ab; [Hepner] 1522—ab
retrolental fibroplasia and premature birth, [Speert] 676—ab
LEPROSY
contagiousness, incubation and treatment, 1221
diagnosis, Mitsuda's reaction, Brazil, 760
immunobiologic effect of BCG in, 1512
neural, infectivity, [Davison] 203—ab
Pan American Leprosy Conference, 665
registry, at Leonard Wood Memorial, American Leprosy Foundation, 1105
treatment, newest, 941
treatment of primary lesion by extirpation, [Boenjamin] 1121—ab
treatment, promacetin, [Johansen] 846—ab
World Health Organization, fight against, Paris, 569
LEPTOMENINGITIS
chronic, [Fox] 1122—ab
LEPTOSPIROSIS
canicola fever, [Campbell] 774—ab
Weil's disease, penicillin ineffective; aureomycin cures, [Batchelor & Todd] *21
LESINSKI, JOHN, death, 659
LEUKEMIA
diagnosis (differential) from myeloid metaplasia, [Block & Jacobson] *1395
eosinophilic, ACTH for, [Donohue & others] *154
in children, osteoarticular symptoms, [Marquézy] 774—ab
susceptibility to, relation to age, 816—E
treatment, folic acid antagonists, [Sacks] 496—ab; [Heinle] 599—ab; [Silverman] 1523—ab
treatment, massive sternosternal transfusion in acute form, [Danopoulos] 322—ab
treatment, nitrogen mustard, [Tsevrenis] 932—ab
treatment, radiation, anuria after, [Lear & Oppenheimer] *806
treatment, radioisotopes accidental skin ulcerations from, [Patton & Millar] *554
LEUKOCYTES: See also Eosinophils
Count: See also Agranulocytosis; Leukemia; Mononucleosis, Infectious
count in pathergic diseases, Brazil, 1015; 1196
LEUKODERMA: See Vitiligo
LEUKOPLAKIA
perianal, 405
LEUKORRHEA
cause of vaginal discharge in girls 6 and 8, 1533
LEUKOTOMY (Lobotomy): See Brain surgery
LIBEL and Slander: See Midicolegal Abstracts at end of letter M
LIBERIA
health mission to, 187
LIBRARIANS, Record: See Medical Record Librarians
LIBRARY: See also Journals; Newspapers
Fischer (Hermann O. L.) to U. of California, 1351
Norman, of Psychiatric Literature acquired by Institute of Living, 1105
Packard, Philadelphia, 484
Tilderquist Memorial, Minnesota, 305
LICENSURE: See also State Board
candidates examined according to medical schools, *442; *445
candidates examined, 1945-1949, number who failed and passed, *457; *462; (foreign graduates) *469; 475—E
candidates, source of those examined in U.S., *446
examination (consolidated) of State Board and National Board, *447
examination, failures in, *446; *447; *448; *449; *457; *462; (foreign graduates) *469; 472—E
fees, *456; *461
foreign displaced physician in U.S.; certification by International Refugee Organization of U.S., [Burgess] *413
foreign graduates, state board requirements, *464
foreign-trained physicians examined for, *463; *466; *469; 475—E
licentiates representing additions to profession, *451; *458; *459
National Board of Medical Examiners' certification, states endorsing, *471; *472; *474; 475—E
number of licenses issued, (1949) *441; 475-E; (1935-1949), *446
registration (annual), states requiring, *457; *462
registration by reciprocity and endorsement, *448; *450; *452; *454
registration of graduates of approved schools and others, 1922-1949, *459; *463
registration of graduates of schools of osteopathy, 1944-1949, *460; *465

LICENSURE—Continued
registration of graduates of unapproved medical schools, 1944-1949, *460; *465
registration of physicians, 1904-1949, *458; *462
requirements for interns and residents, *453; *459
schedule of written examination dates and reciprocity meetings, *456; *461
Statistics Number June 3, 1950, *441; 475—E
temporary permits, *456; *461
to practice in Great Britain, [Diehl & others] *1497
U. S. Government credentials, basis for, *456
LICHTENSTEIN, ADOLF, valedictory address at Karolinska Institut, 1111
LIDS: See Eyelids
LIFE: See also Death: Living
Duration: See also Old Age
duration, longevity of paraplegics, [Dane] 208—ab
Insurance: See Insurance
LIGHT: See also Lighting; Sunlight
sensitivity to; photosensitization therapy of acne vulgaris, 780
LIGHTING
school, basic requirements in, [Tinker] (Council article) *362
LIMBS, ARTIFICIAL
exhibit by Veterans Administration, 1187
LIP: See Lips
LIPIDS: See also Fat
etiology of atherosclerosis, 1344—E
LIPOCHONDRODYSTROPHY
Hurler's disease, [Hurtado] 144—ab
LIPOMELANIC reticulosis, [Agress & Fishman] *957
LIPS
cancer, [Burkell] 498—ab
cancer and tobacco smoking, [Levin & others] *336; [Grace] 1446—C
splitting of, 859
switched lower lip flap for upper lip restoration, [Blair] 846—ab
LIQUOR, Alcoholic: See Alcohol
LITERATURE: See Journals; Newspapers; Terminology
LITHIUM
chloride, used in processing foods, [Bing] 766—ab
LIVEDO
reticularis, cutis marmorata, 695
LIVER: See also Bile Ducts; Biliary Tract
biopsy (needle), [Welsbrod] 680—ab
biopsy (punch), contraindications, [Kleitsch] 1363—ab
cirrhosis (brucellar chronic splenomegalic) [Signorelli] 851—ab
cirrhosis (portal), 149; [Ricketts] 1367—ab
cirrhosis, Society of Pathology of Digestion and Nutrition discus, Spain, 758
Disease: See also Jaundice
disease, nitrogen balance in, 1194
disease (parenchymal), blood proteins in, [Stroebe] 1216—ab
disease, U. S. Army Hepatic and Metabolic Center, 750
dysfunction and diabetes mellitus: [Pelner & Waldman] 1017-C; [Leevy] 1020-ab
Extract: See Liver preparations
fatty infiltration, relation to ACTH [Archer] 570-C
function during PAS treatment of tuberculosis in children, [Baffi] 1215—ab
function in alcoholic patients, [Voegtlin] 1367—ab
function test, anaphylactoid reaction to sulfobromophthalein sodium, [Roth] *802
function test, preoperative, 609
inflammation, danger of gamma globulin contaminated with viral hepatitis? 782
inflammation, exfoliative dermatitis and hepatitis due to phenobarbital, [Welton] *232
inflammation, hepatitis unusual reaction to penicillin, [Felder & Felder] *361
inflammation, inoculation hepatitis, Norway, 131
inflammation, skin test for infectious hepatitis, [Henle] 1522—ab
inflammation, virus hepatitis, hazard in medical personnel, [Kuh & Ward] *631
inflammation, serum proteins in virus hepatitis, [Ricketts] 395—ab
myeloid metaplasia, [Block & Jacobson] *1390
Oil: See also Cod Liver Oil
oil (percomorph), poisoning in infants and children, [Caffey] 1283—ab
pathology, establish registery of, 485
preparations, extract for aged persons, 1298
preparations, extracts and vitamin B_{12} in degeneration of cord, [Ungley] 399—ab
surgery, hepatocholangiogastrostomy, [Seifert] 1373—ab
tumors, hepatectomy for, [Sénèque] 1033—ab
LIVING: See also Life
American way of, 118—E
LOAN Fund: See Students, Medical
LOBECTOMY: See Lungs, surgery
LOBOTOMY, Prefrontal: See Brain surgery
LOCKJAW: See Tetanus
LOCOMOTOR ATAXIA: See Tabes Dorsalis
LOEFFLER'S SYNDROME
treatment, ACTH, [Herbert] 500—ab
LOGIE, H. BURTON, death, 1354
LONGEVITY: See Life duration; Old Age; Physicians, veteran
LORDOSIS: See Spine curvature
LOW Blood Pressure: See Blood Pressure
LUMBAR Puncture: See Spinal Puncture
Sympathectomy: See Sympathectomy
LUMINAL: See Phenobarbital
LUNGS: See also Bronchus; Respiration; Respiratory System
abscess (chronic), lobectomy and pneumonectomy in, [Paulino] 687—ab
abscess, drainage and penicillin for, [Sutherland] 1212—ab
abscess, penicillin for, [Drouet] 1122—ab
blood pressure high in, in heart disease, [Borden] 1282—ab
calcification (diffuse miliary) healing in mycosis, [Hamill] 676—ab
calcifications, [Heaton] 841—ab
cancer and bronchogenic carcinoma, [Shefts] 1021—ab
cancer and tobacco smoking, [Wynder & Graham] *329; [Levin & others] *336; [Grace] 1446—C
cancer (bronchogenic), nitrogen mustard for, [Kent] 842—ab; (inoperable type) [Lynch] 1030—ab
cancer (bronchogenic), nonmalignant lesions simulating, [Llavag] 1213—ab
cancer, clinical analysis and follow-up, [Rienhoff] 499—ab
cancer, cytologic diagnosis, [Woolner] 499—ab; [Clerf] 593—ab; [Reingold] 1022—ab
cancer, minute early bronchogenic, [Petersen] 138—ab
cancer, terminal bronchiolar, [Smith] 138—ab
Collapse: See also Pneumothorax
collapse, postoperative atelectasis, [Hilding] 1204—ab
Collapse Therapy: See Tuberculosis of Lung
Disease: See also Bronchopneumonia; Influenza; Pneumonoconiosis; Pneumonia
disease, discovered by mass roentgen survey, [Clark & others] *943
disease, primary lesion in tuberculous children and streptomycin, [Lorber] 1031—ab
Embolism of Pulmonary Artery: See Embolism, pulmonary
function in bituminous coal miners, [Motley] 502—ab
Fungous Diseases: See Lungs mycosis
granulomatosis of beryllium workers, [Robert] 1277—ab; (ACTH effect on) [Kennedy] 1518—ab
histopathologic changes in after streptomycin, [Mahon] 1116—ab
hyaline-like material in infants, [Miller] 771—ab
Infections: See also Bronchopneumonia; Influenza; Pneumonia; Tuberculosis of Lung
infections (acute) in adults, terramycin for, [King & others] *1
intracavity suction for bullous emphysema, [Head] 139—ab
lesions (nonmalignant) simulating bronchiogenic cancer [Llavaag] 1213—ab
mycosis, [Bass] *1041
mycosis, laboratory diagnosis, [Conant] 1517—ab
mycosis, simultaneous primary occurrence in 4 children and mother, [Hamil] 676—ab
pathology, chronic cor pulmonate, visammin (khellin) for, [Rosenman & others] *160
sarcoidosis, 941
surgery, for bronchiectasis in children, [Buckles] *344
surgery, lobectomy and pneumonectomy in chronic abscess, [Paulino] 687—ab
surgery, lobectomy for bronchiectasis in patient 82, [Rosenblatt & others] *552
surgery, pneumonectomy followed by thoracoplasty, [Iverson] 1207—ab
surgery, pneumonoplasty, periosteoplastic pneumolysis, [Edwards] 321—ab
surgery, pregnancy after pneumonectomy, [Long & others] *358
syphilis (miliary), [Anglesio] 1374—ab
transitory infiltration with eosinophilia (Loeffler's syndrome), ACTH in, [Herbert] 500—ab
Tuberculosis of: See Tuberculosis of Lung
tumors (muscle), roentgen study, [Sherman] 1283—ab
Vital Capacity: See Vital Capacity
LUPUS ERYTHEMATOSUS
acute disseminated, nitrogen mustard in, (reply) [Goldberg] 782
cytochemical changes in, [Klemperer] 1366—ab
disseminatus, ACTH for, [Schwartz] 1375—ab
treatment, ACTH, [Grace] 205—ab
treatment, cortisone and ACTH, [Baehr] 1118—ab
LUTAZOL
treatment of trachoma, [Tsopelias] 1213—ab
LYMPH
transport of absorbed fat, 818—E
LYMPHATIC SYSTEM: See also Mononucleosis, Infectious
cat scratch disease; adenopathy of unknown origin, 1193
LYMPHATIC SYSTEM—Continued
lipomelanic reticulosis, [Agress & Fishman] *957
microscopic study of nodes in Hodgkin's disease, [Hoffmann] 497—ab
LYMPHEDEMA, [De Takats] 766—ab
LYMPHOCYTES
infiltration and angiogenesis, [Moschcowitz] 768—ab
LYMPHOCYTOSIS
infectious, [Lemon] 396—ab
infectious, acute institutional outbreak, [Barnes] 316—ab
LYMPHOGRANULOMA: See Hodgkin's Disease
LYMPHOGRANULOMA, VENEREAL
diagnosis, laboratory tests, [Milzer] *219
LYMPHOMAS
treatment, nitrogen mustard, [Alpert] 1021—ab

M

"M.D.—the U.S. Doctor", documentary film, 746—E
MacCARTHY, ALBERT H., Am I an Enemy of Animals? 1346—E
McDOWELL, EPHRAIM, state society opens home, Kentucky, 1005
McGRAW Lecture: See Lectures
MAGAZINES: See Journals
"MAGIC SPIKE" tube of Erickson and Nelson, 571—BI
MAGNESIUM bicarbonate in continuous drip treatment in peptic ulcer, [Clark] 1120—ab
Silicate: See Talc
MAICO UE Atomeer Hearing Aid, 1069
MALARIA
control activities of WHO, 1345—E
falciparum, bone marrow biopsy not justified in, [Zacharias] 601—ab
recurrent, and quinacrine, 1296
MALE: See Spermatozoa
Hormone: See Androgens
Impotence: See Impotence
MALFORMATIONS: See Abnormalities
MALIGNANCIES: See Cancer; Sarcoma
MALNUTRITION: See Nutrition
MALPRACTICE: See Medicolegal Abstracts at end of letter M
Grievance Committee: See Societies, Medical
MALTA FEVER: See Brucellosis
MAMMARY: See Breast
MANLOVE, FRANCIS R., associate secretary of A.M.A. Council, 1184; 1434
MANNITOL hexanitrate, N.N.R., (Physicians' Drug and Supply), 1486
MANSLAUGHTER: See Murder
MANUAL LABOR: See Work
MARAÑON SYNDROME, 758
MARRIAGE: See also Coitus; Contraception; Divorce; Families; Maternity; Pregnancy
number declining, 485
MARROW: See Bone Marrow
MASSAGE: See also Heart
MASTER Two-Step Test: See Heart, electrocardiogram
MASTITIS: See Breast inflammation
MASUGI'S nephritis, [Roda] 687—ab
MATERNITY: See also Families; Labor; Lactation; Pregnancy
age, empiric risk figures in mongolism, [Böök & Reed] *730
care, A.M.A. Correlating Committee on, 989
Hospitals: See Hospitals
in Great Britain, 763—ab
mortality, Brazil, 197
mortality from criminal abortion induced by intrauterine pastes, [Dutra & others] *865
mortality study, Minnesota, 1005
MAXILLARY SINUS
cancer, cytologic smear technic, [Fitz-Hugh] 1281—ab
MAYO Memorial Medical Center at U. of Minnesota, 1505
MEALS: See Food
MEASLES
German: See Rubella
in mothers; congenital heart defect in child, 1126
incidence: more cases in 6 month period, Ill., 1188
prevention, gamma globulin, danger of being contaminated with viral hepatitis? 782
MECHANAIRE Iceless Oxygen Tent, Model 30, 971
MECKEL'S Diverticulum: See Intestines
MEDALS: See Prizes
MEDIASTINUM
packing for esophageal varices, [Garlock] 1208—ab
tumors, "tuberculoma", [Samson] 923—ab
MEDICAL ARTICLES: See Journals
MEDICAL ASSOCIATION: See American Medical Association; Societies, Medical; list of societies at end of letter S
MEDICAL AWARDS: See Prizes
MEDICAL BOOKS: See Library; Book Notices at end of letter B
MEDICAL CARE: See Medical Service
MEDICAL CENTER: See also Health Center
Albany Medical Center Council organized, New York, 753
coordinator appointed, Pittsburgh, 306
Mayo Memorial, at U. of Minnesota, 1505

MEDICAL CENTER—Continued
New York U. Bellevue, gift from International Ladies' Garment Workers Union, 1352
U.S. Navy, lecture at, 661
MEDICAL CERTIFICATE: See Death certificate
MEDICAL CODE: See Ethics, Medical
MEDICAL COLLEGE: See also Schools, Medical; University
of Alabama library, Dr. Kracke mementos to, 1266
MEDICAL CONFERENCE: See Conference
MEDICAL CONGRESS: See Congress
MEDICAL CORPS: See Army, U.S.; Navy, U.S.;
MEDICAL DEPARTMENT: See Army, U.S.
MEDICAL DIATHERMY: See Diathermy
MEDICAL ECONOMICS: See Economics, Medical
MEDICAL EDUCATION: See Education, Medical
MEDICAL ETHICS: See Ethics, Medical
MEDICAL EXAMINATION: See Physical Examination
MEDICAL EXAMINER: See also Aviation, U.S. Air Force
system, A.M.A. brochure on, 749—O S
MEDICAL FEES: See Fees
MEDICAL FOUNDATION: See Foundations
MEDICAL GRADUATES: See Graduates
MEDICAL HISTORY: See Medicine, history
MEDICAL ILLUSTRATORS: See Art
MEDICAL INSTITUTE: See Institute
MEDICAL JOURNALS: See Journals
MEDICAL JURISPRUDENCE: See also Laws and Legislation; Medicolegal Abstracts at end of letter M
A.M.A. Committee on Medicolegal Problems created, 749
artificial insemination without wife's knowledge, 327
consent to operations, 1344—E
course in International Medical Law, 1358
court decision on restraint of trade; commercial laboratory vs. New York State Society of Pathologists, 1417—E
identification of exchanged identical twins, [McIndoe] 685—ab
Institute on Medicolegal Problems, Calif., 304
prepayment plans in relation to restraint of trade; Washington court decision, 1262—E
MEDICAL LECTURES: See Lectures
MEDICAL LEGISLATION: See Laws and Legislation
MEDICAL LIBRARY: See Library
MEDICAL LICENSURE: See Licensure
MEDICAL MAGAZINES: See Journals
MEDICAL MEETINGS: See Societies, Medical; list of Societies at end of letter S
MEDICAL MISSION
medical missionary, Dr. Moffett requests immediate active duty in Korean, 1435
sponsored by Unitarian Service Committee, (to Colombia) 197; (to Germany) 907
sponsored by U.S. Public Health Service, (to Liberia) 187; (to Indo-China) 903; (to Greece) 1003
MEDICAL MOTION PICTURES: See Moving Pictures
MEDICAL MUSEUM: See Health museum; Medicine, history of
MEDICAL OFFICERS: See Army, U.S.; Navy, U.S.
MEDICAL PERIODICALS: See Journals
MEDICAL PICTURES: See Art; Moving Pictures
MEDICAL PLANS: See Medical Service Plans
MEDICAL PRACTICE: See Medicine, practice; Physicians
MEDICAL PRACTICE ACTS: See Medicolegal Abstracts at end of letter M
MEDICAL PREPAREDNESS: See also Civilian Defense
American Red Cross accepts request of Secretary of Defense to collect blood, 1439
A.M.A. Committee on Blood Banks special blood bank questionnaire, 1160—E
A.M.A. resolution on assuring adequate medical service, advice to National Security Council, 1098
bills for drafting physicians, 1418
blood collection, urge standardized method, 1417—E
burn problem in atomic warfare, [Evans] *1143
draft extension, 185
drafting physicians, 1347; 1418
hospitals and doctors organize for, N.Y.C., 1352
initial call for medical officers, 1490
medical support of combatant forces, 1347
military medical services, shortage of physicians, 1263
military medical situation, 1070—E; 1103
Pennsylvania state medical society committee on procurement of physicians, 1353
physicians in reserve units, 1185; 1186
registration of physicians for military service, 1416—E
Selective Service and medical students, 1418
Selective Service, physicians under, 1002; 1185; 1347
Selective Service to induct 50,000 more draftees, 1490
MEDICAL PRIZES: See Prizes
MEDICAL PROFESSION: See Medicine, profession of; Physicians; Surgeons
MEDICAL PUBLIC RELATIONS: See Public Relations
MEDICAL RECORD LIBRARIANS
schools for, *116; 118—E
MEDICAL RESEARCH: See Research
MEDICAL RESEARCH COUNCIL, [Diehl & others] *1493
MEDICAL RESERVES: See Armed Forces; Aviation, U.S. Air Force; Navy, U.S.
MEDICAL SCHOOLS: See Schools, Medical; Medicolegal Abstracts at end of letter M
MEDICAL SCIENCE: See Basic Science; Medicine; Research; Science
MEDICAL SERVICE: See also Hospitals; Insurance, sickness; Medical Center; Physicians
A.M.A. Council on Federal Medical Services, resolution on, 1084; 1098
A.M.A. Reference Committee on Emergency Medical Service, (report), 1097; 1102
A.M.A. Reference Committee on Insurance and Medical Service, (report) 1101
A.P.H.A., statement on, 986; 1262—E; [Dickinson] *1274
cost of, contrasted with other items, 1185
cost of, vs. cost of living, [Dickinson] *1198; 1160—E
costs of, A.M.A. resolution on, 1084; 1098
Fees for: See Fees; Income
for Students: See Students, health service
for Veterans: See Hospitals, veterans; Veterans
in England under National Health Service, [Martin & others] *1420; [Diehl & others] *1498
Industrial: See Industrial Health
Institute on Social Aspects of Medical Care, Missouri, 305
purveyal of, A.M.A. resolution on, 1083; 1088
purveyal of, ethics of, 1404—ab
Rural: See Rural Communities
State: See Medicine, state
Supply of Physicians for: See Physicians, supply
United Mine Workers Welfare and Retirement Fund, 819; [Morrison] 1286—ab
MEDICAL SERVICE PLANS: See also Hospitals, expense insurance
A.M.A. Committee on Hospitals and Practice of Medicine, report on Blue Shield, 1090; 1091
A.M.A. Correlating Committee on Relations with Lay Sponsored Voluntary Health Plans, **20 principles, 140:** 686; 799, July 2, 1949; **141:** 1173; 1306, Dec. 17, 31, 1949; **143:** 988; 991, July 15, 1950
A.M.A. Correlating Committee on Prepayment Hospital and Medical Care, liaison with Blue Shield, 989; 991; 1184
A.M.A. resolution on including payment for nursing services in, 986
advertising of National Health Service, England, 746—E
Health Insurance Plan of Greater New York, first three years, [Baehr] *637; 658—E; [Kleefield] 1445—C
Group Health Cooperative of Puget Sound vs. King County (Wash.) Medical Society, court decision, 1262—E
MEDICAL SOCIETY: See Societies, Medical; list of societies at end of letter S
MEDICAL STATISTICS: See Statistics; Vital Statistics
MEDICAL STUDENTS: See Students, Medical
MEDICAL SUPPLIES: See Apparatus; Instruments (cross reference)
MEDICAL TECHNOLOGISTS: See Technologists
MEDICAL TERMINOLOGY: See Terminology
MEDICAL WOMEN: See Physicians, women
MEDICALLY INDIGENT
A.M.A. Correlating Committee on Indigent Care Activities, 988
California Society of Pathologists to perform examinations on, 563
MEDICATION: See Drugs
MEDICINE: See also Education, Medical; Medical Service; Physicians; Surgeons; etc.
Advances in: See Medicine, progress
American, responsibility in fight against socialism, [Henderson] *783
Congress of: See Congress
Cults: See Cults
environmental medicine department, (new) at Johns Hopkins, 483
Faculty of: See Schools, Medical
Fellowships: See Fellowships
Forensic: See Medical Jurisprudence
Foundations Aiding: See Foundations
history, *Archivos Ibero-Americanos de Historia de la Medicina*, first issue, Spain, 670
history of, dept. created at U. of Wisconsin, 1189
history of, Hurd-Mead lectureship at Woman's Medical College, 664
history of, Swedish museum for, 488
Industrial: See Industrial Health
Institute of: See Institute
Law in relationship to: See Medical Jurisprudence
Lectures: See Lectures
MEDICINE—Continued
Legal: See Legal Medicine (cross reference)
Military: See Military Medicine
Organized: See American Medical Association; Societies, Medical
Pastoral: See Clergymen
Physical: See Physical Medicine
Practice: See also Licensure; Medical Service; Physicians; Specialties; etc.
practice, A.M.A. Committee on Hospitals and Practice of Medicine (Hess report) 1073; 1075; 1082; 1083; 1088; 1090; 1091
practice by hospitals, A.M.A. resolution on, 1073; 1080
practice (general), A.M.A. Committee on, 981; 1092
practice (general), A.M.A. resolution on increase training programs in, 1173
practice (general), A.M.A. resolution on manual on establishing department of, in hospitals, 1077; 1092
practice (general), A.M.A. resolution on specialty boards requiring 2 years in, 1083; 1092
practice (general) in Great Britain, [Diehl & others] *1498
practice, in Great Britain, surveys of, 983; 987; 1088; [Martin & others] *1420
practice of, A.M.A. resolution on recognition of anesthesiology, pathology, physical medicine and roentgenology, 1080; 1089
Practice, Opportunities for: See Physicians, positions open
Prizes in: See Prizes
Profession of: See also Physicians; Surgeons
profession of safeguarding, 338—ab; 1303—ab
profession of, upholding honor of, 431—ab
progress, Am I an Enemy of Animals? 1346—E
progress, current advances in, course on, Pa., 1506
progress, are statistics necessary? 1260—E
psychiatry in, scope and relationships, [Gerty] *613
Psychosomatic: See Psychosomatic Medicine
Research in: See Research
Scholarships: See Scholarships
School of: See Schools, Medical
Socialized: See also Insurance, sickness (compulsory); Medicine, state
socialized, [Irons] 977
socialized, A.M.A. National Education Program to prevent, 744—E; 987; 1081; 1093; 1098
socialized, A.M.A. resolution opposing bills favoring federal grants-in-aid, 1083; 1096
socialized, government cannot force it on us, [Koontz] 1113—C
socialized, history of, in Great Britain, [Martin & others] *1420; [Diehl & others] *1492
socialized, joint meeting on, Illinois, 904
Socialized, National Health Service, England: See National Health Service
Societies: See Societies, Medical
Specialization: See Specialization
state dictated, World Medical Association resolution against, 561—OS
state, "Granny Racket", London, England, 828
state, rights of the individual in tuberculosis case finding program, [Wasserug] 1197—C
Tropical: See Tropical Medicine
Women in: See Nurses and Nursing; Physicians, women
MEDICINES: See Drugs
MEDICOLEGAL: See Medical Jurisprudence; Medicolegal Abstracts at end of letter M
MEDIN-Heine Disease: See Poliomyelitis
MEETINGS: See Societies, Medical; list of Societies and Other Organizations at end of letter S
MEGAESOPHAGUS: See Esophagus
MEGACOLON: See Colon
MELALGIA
nutritional, a deficiency vascular disease, [Vernon] *799
MELANOMA
malignant, in infant; placental transmission possible? [Dargeon] 1118—ab
MEMORIAL Lectureship: See Lectures
MEN in Service: See Armed Forces; Army, U.S.; Navy, U.S.; World War II
MÉNIÈRE'S Syndrome: See Vertigo, aural
MENINGES
hematoma (subdural), electroencephalogram, [Smith] 1521—ab
hemorrhage (subarachnoid): prognosis, 148
reaction in rheumatic fever, [Nassi] 1033—ab
Tuberculosis: See Meningitis tuberculous
MENINGIOMA
of optic foramen causing blindness, [Craig] 501—ab
simulating multiple sclerosis, [De Fispert] 688—ab
MENINGITIS: See also Arachnoiditis; Leptomeningitis
aseptic, Coxsackie disease, 972—E; 1004
bacterial, gantrisin in, [Rhoads] 594—ab
bacterial simultaneous double infections in children, [Vaden & others] *1402

MENINGITIS—Continued
Bacterium coli in infants, therapy, [Grundler] 504—ab
cerebrospinal epidemic, communicable disease report, 754
complicating gold therapy, BAL for, [Myerson] *1336
influenzal, anti-hemophilus influenzae type B serum (rabbit), N.N.R., (Squibb) 1485
influenzal, chloramphenicol for, [Prather & Smith] *1405
influenzal, streptomycin for, also combined with sulfadiazine, aureomycin, or specific rabbit serum, [Appelbaum & Nelson] *715
influenzal, type B, sulfadiazine serum or streptomycin for, [McMorrow] 926—ab
Meningococcic: See Meningitis, cerebrospinal
tuberculous, after immunization against typhoid, [Auersbach] 1216—ab
tuberculous, in children, streptomycin for, [MacCarthy] 930—ab
tuberculous, in children, streptomycin-promizole therapy, [Lincoln] 678—ab
tuberculous, streptomycin in, 194; [Russell] 503—ab; (in Turkey) 670; [Bunn] 837—ab; [Chaptal] 851—ab
tuberculous, streptomycin level in spinal fluid in, [Hanssen] 1454—ab
MENINGOCOCCUS Meningitis: See Meningitis cerebrospinal epidemic
MENOPAUSE
artificial, in young woman (19 years old), use of estrogens, 326
beta-glucuronidase studies in women, [Fishman & others] *350
hemorrhage after onset of, 407
treatment, estradiol better than estrone for, 940
MENSTRUATION
blood, content of menstrual discharge, 1039
Cessation of: See Amenorrhea
Disorders: See Amenorrhea, Dysmenorrhea
migraine during menstrual period, 782
premenstrual chills, 1127
premenstrual intoxication, [Stieglitz] 315—ab
premenstrual symptoms, 1221
premenstrual tension, 612
premenstrual use of methyl-testosterone in dysmenorrhea, [Filler] *1235
Wassermann test nonspecific positive in, [Wildfôhr] 687—ab
MENTAL DEFICIENCY: See also Epilepsy; Idiocy
American Foundation on, 1267
no relation to Rh factor, [Gilmour] 1524—ab
MENTAL DISORDERS: See also Alcoholism; Dementia Precox; Epilepsy; Psychoses
census of mental patients, report by National Institute of Mental Health, 662
Hospitalization in: See Hospitals, psychiatric
in chronically anoxemic patients during oxygen therapy, [Comroe & others] *1044
thyroid function in, [Bowman] 677—ab
treatment, electric shock in patient with scoliosis and lordosis, [Kwalasser] 1209—ab
treatment, low current electroshock, [Lemere] 1209—ab
treatment, prefrontal leukotomy in minors, [Yahn] 1290—ab
MENTAL HEALTH: See Mental Hygiene
MENTAL HOSPITALS: See Hospitals, psychiatric
MENTAL HYGIENE
Department, service in, New York, 483
dianetics, 1220
interdepartmental committee on, Minn, 1106
mental health institute, Utah, 382
National Advisory Mental Health Council, 562; 1503
National Institute of Mental Health, report on number of mental patients, 662
program, Minnesota, 905
program, N. Y., 1352
report on, U.S., 1104
services report, 381
World Federation for Mental Health (3rd meeting), 1272
MENTALITY: See Intelligence; Mental Deficiency
MEPACRINE: See Quinacrine
MEPERIDINE (demerol; dolantin)
hydrochloride, N.N.R., [Winthrop-Stearns) 813
MEPHENESIN (myanesin; tolserol)
N.N.R. (description) 665; (Organon) 655
toxicity: abdominal pain and anemia, [Kositchek & Barnet] *22
treatment of multiple sclerosis, [Schumacher] *1248
treatment, oral in infantile cerebral paralysis, [Frantz] *424
MERBAK: See Acetomeroctol
MERCAPTOMERIN (thiomerin)
sodium, N.N.R., (description) 895; (Campbell) 895
thiomerin or mercuhydrin, 1298
dMERCAPTOPROPANOL: See BAL
MERCK & CO. policy on supplying cortisone [Carlisle] 831—C
MERCUHYDRIN, 1298
MERCURY
decoloration of hair, 779
in urine, 1533
MERCY Killing: See Death, Euthanasia
MERSALYL
salyrgan-theophylline, N.N.R. (Winthrop-Stearns) 1486
MESANTOIN
toxicity, hypertrophy of gums, 1298
treatment of epilepsy, [Kozol] 679—ab; [Bercel & others] *1460
MESENTERIC Thrombosis: See Thrombosis
METABOLISM: See also under names of specific substances
basal, Jones Multi-Motor-Masal Metabolism Apparatus, 812
basal, rate, in warm climates, 942
disturbances during influenza, [Baur] 1034—ab
U.S. Army Hepatic and Metabolic Center, 750
METALS: See also Aluminum; Gold; Iron; Lead; Silver
glossodynia from dental restorations, 1457
METAPLASIA, myeloid, [Block & Jacobson] *1390
METASTASES: See Cancer
METEORISM: See Flatulence
METHEMOGLOBINEMIA in infants and well waters, 476—E
METHOXYPHENAMINE hydrochloride, orthoxine hydrochloride, N.N.R., (description) 897; (Upjohn) 897
METHYL ALCOHOL
danger from swallowing nail polish remover and psychoneurosis, 941
METHYL-BIS (BETA-CHLOROETHYL) AMINE: See Nitrogen Mustard
METHYLCELLULOSE
N.F., (Cellothyl; Syncelose), N.N.R., (description) 897; (Chilcott; Blue Line) 897
METHYLENEBIS (hydroxycoumarin): See Dicumarol
METHYLENE BLUE
treatment plus desoxycorticosterone in rheumatoid arthritis, [Hallberg] 930—ab
METHYLHEXAMINE
N.N.R., (description) 1156; (Lilly) 1156
1-METHYL-2-MERCAPTOIMIDAZOLE
treatment of hyperthyroidism, [Reveno & Rosenbaum] *1407
METHYLOXAZOLIDINE: See Trimethadione
METHYLROSANILINE CHLORIDE
treatment of Clonorchis sinensis infestation, 1297
METHYL TESTOSTERONE: See Androgens
METHYLTHIONINE Chloride: See Methylene Blue
METHYLTHIOURACIL
treatment of thyrotoxicosis, [Poate] 1289—ab
METRAZOL
treatment of barbiturate poisoning, [Jones & others] *884
METUBINE
iodide (dimethyl-tubocucarine Iodide), N.N.R., (Lilly) 815
MEXICO
U.S.-Mexico border health program, 307
MICROBIOLOGY: See also Bacteria
International Congress on (5th), 382
MICROFILMS
microfilming of Archives of Internal Medicine, 749—OS
MICROORGANISMS: See Bacteria
MIDCENTURY White House Conference on Children and Youth, [Helmholz] *625
MIDWIFERY: See Obstetrics
MIGRAINE: See also Headache
during menstrual period, 782
ocular manifestations, [Donahue] 316—ab
treatment, dimenhydrinate (dramamine), [Brenton] 928—ab
treatment, ergot preparations, [Fuchs & Blumenthal] *1462
treatment, especially nicotinic acid, 214
MILIBIS: See Bismuth glycolylarsanilate
MILITARY: See also Armed Forces; Army; Aviation, U.S. Air Force; Veterans; War
Citations: See Korean War; World War II, Heroes
civilian coordination, 1347
medicine and surgery, A.M.A. Session on (program) 265; (minutes) 1175
medicine and surgery, A.M.A. Section on, resolution requesting, 1084; 1094
medicine, International Office of Documentation of, Principality of Monaco, 1013
Preparedness: See Medical Preparedness
service, registration of physicians for, 1416—E
MILK
citrated in continuous drip for peptic ulcer, [Clark] 1120—ab
for infant feeding, 1040
goats, in treatment of peptic ulcer, 513
homogenized: nutritional value of, 860
Human: See also Infants, feeding; Lactation
human, transfer of aureomycin to, [Guilbeau & others] *525
Lactum; Dalactum, 1415
pasteurization law in effect, Minn., 1106
soils and health, [Maynard] *807
vitamin D, [Jeans] *177; (Sweden) 1444
MILLER-ABBOTT Tube: See Duodenal Tube
MILLER (Leo F.) Award: See Prizes
MILLIN'S Prostatectomy: See Prostatectomy
MINERAL: See also Gold; Iron; Lead; Silver
content of bone, roentgen estimation, [Henny] 771—ab
deficiencies, [Youmans] *1252
soils and health, [Maynard] *807
Water: See Health resorts
MINERS
coal, pulmonary function in, [Motley] 502—ab
United Mine Workers program, 819; (medical care under), [Morrison] 1286—ab
MINES
U.S. Bureau of, training in first aid, 751
MINISTRY: See Clergymen
MINNESOTA, University of: See University
MISCARRIAGE: See Abortion
MISSION: See Medical Mission
MISSISSIPPI Valley Essay Contest: See Prizes
MITE BITE Fever: See Tsutsugamushi Fever
MITRAL VALVE
stenosis, commissurotomy for, [Glover] 841—ab; [O'Neill] 1206—ab
stenosis, surgical treatment, [Harken; Bailey] 397—ab
MITSUDA'S REACTION
in leprosy, 760
MOFFETT, HOWARD F., medical missionary requests active duty in Korea, 1435
MOLES
on scrotum, 939
Pigmented: See Nevus
MOLINA, ALFONSO QUINONESY, death, 825
MOLLUSCUM
contagiosum, laboratory tests in, [Milzer] *219
MONILIASIS
cutaneous, 215
vaginal discharge in girls 6 and 8 due to, 1533
MONONUCLEOSIS, INFECTIOUS, 891—ab
complications: Guillain-Barré syndrome and facial paralysis treated with BAL, [Creaturo] *234
diagnosis, 781
diagnosis of 2 types; seropositive and seronegative, [Davidsohn] 1360—C
treatment suggested, 326
MOONE'S Emerald Oil, FTC action, 377
MORAL CODE: See Ethics, Medical
MORBIDITY: See Disease
Statistics: See Vital Statistics
MORPHINE
addict, death due to abrupt withdrawal or large dose of morphine? 405
treatment of postcholecystectomy syndromes, [Amelar] 761—C
MORTALITY: See Death; Maternity mortality; Vital Statistics; etc.; under names of specific diseases
MOSES Prize: See prizes
MOTHERS: See Families; Maternity
Milk: See Milk, human
MOTION PICTURES: See Moving Pictures
MOTION SICKNESS
treatment, dimenhydrinate (Dramamine), N.N.R., (description) 815; (Searle) 815
MOTOR VEHICLES: See Automobiles; Medicolegal Abstracts at end of letter M
MOUTH: See also Gums; Lips; Teeth; Tongue
cancer and dental protheses, [Hobaek] 850—ab
chickenpox lesions in; treatment, 1534
"cracks" at corner of: See Perlèche
electrical burns, [Tummers] 1214—ab
MOVEMENT
mobilization of human body, (film review), 832
MOVING PICTURES: See also Television
A.M.A. Council plans, sequel to film "They Also Serve", 1184
at San Francisco Session, 288
International Medical and Surgical Film Institute, Switzerland, 196
"M.D.--the U.S. Doctor", documentary film, 746—E
MOVING PICTURES, MEDICAL (REVIEWS)
Arterial Disorders in Upper Extremity and Their Treatment by Sympathectomy, 1274
Breast Self Examination, 673
Cardiotomy for Removal of Bullet Embedded in Right Ventricle, 832
Experimental Thiamin Deficiency, 1274
Feeling All Right, (diagnosis and treatment of syphilis in Negroes) 762
Femoral Hernia in the Female . . . in the Male, 832
Hemicolectomy for Carcinoma of Right Side of Colon, 571
Journey Back, 490
Life With Grandpa, 762
Malnutrition in Hospital Patient, 832
Mobilization of Human Body, 832
Surgical Treatment for Patent Ductus Arteriosus, 832
Thinnest Slice, 762
Ulnar Nerve and Soft Tissue Defect, 1274
MUCOUS MEMBRANES: See also Endometrium; Nose; Stomach
chloramphenicol therapy effect on, 1193
MULTIPLE BIRTHS: See Twins
MUMPS: See Parotitis, Epidemic
MUÑOZ RIVAS, G., new member of medical society, Colombia, 672

MURDER: See also Suicide
F.B.I. seeks trace of murderer, 754
MUSCLES: See also Fascia; Tendons
calf, reduce demand for blood in intermittent claudication, [Naide] *968
Cardiac: See Myocardium
Disease: See Myasthenia
Dystrophy: See Dystrophy, muscular
Inflammation (multiple): See Dermatomyositis
lesions in rheumatoid arthritis, [Horwitz] 207—ab
rectus abdominus, rupture after electroshock therapy, [Savitsky & Karliner] *431
scalenus anticus syndrome, infiltration anesthesia for, [Häberlin] 1374—ab
skeletal, problem of spasm in, [Harell & others] *640
Spasm: See Cramps; Poliomyelitis; Spasm
Sphincter: See Sphincter Muscles
Strength of, Decrease in: See Myasthenia Gravis
tumors in lungs, [Sherman] 1283—ab
unilateral exercise, 559—E
MUSEUM: See Health Museum; Medicine, history of
MUSIC
allergy to rosin in violinist, 1222
hospital music workshop, Chicago, 124
in sanatorium, Belgium, 488
MUSTARD, Nitrogen: See Nitrogen Mustard
MYANESIN: See Mephenesin
MYASTHENIA GRAVIS: See also Dystrophy, muscular
complications: diabetes mellitus, [Perry] *1332
in child aged 4, [Thibaudeau] 598—ab
treatment, ACTH, [Perry] *1332
treatment, thymectomy, [Viets] 601—ab
MYCOSIS: See also Actinomycosis; Blastomycosis; Coccidioidomycosis; Moniliasis
bronchopulmonary, simultaneous primary occurrence in 4 children and their mother, [Hamil] 676—ab
Cutaneous: See Dermatophytosis; Tinea capitis
diagnosis, course on, 822
possible pseudoectothrix, 609
pulmonary, recent advances in, [Bass] *1041
MYELITIS: See Poliomyelitis
MYELOID METAPLASIA, [Block & Jacobson] *1390
MYELOSIS, Funicular: See Spinal Cord
MYHRMAN'S nephropathia epidemica, [Muri] 1214—ab
MYOCARDITIS
chronic, in American trypanosomiasis, Brazil, 390
trypanosomal, acute, [Torres] 143—ab
unusual reaction to penicillin, [Felder & Felder] *361
MYOCARDIUM
basophilic degeneration, [Croxatto] 1454—ab
Infarction: See also Thrombosis, coronary
infarction, acute, 513
infarction, anticoagulants in, [Schilling] *785; (evaluation), [Duff] 1278—ab
infarction, choline as lipotropic agent in, [Morrison] 683—ab
infarction after tetanus antitoxin, [McManus] 204—ab
infarction, heart block after, [Pollitzer] 1208—ab
infarction, prognosis, [Helander] 1525—ab
infarction without anticoagulant therapy, fatal emboli, [Doscher] 1447—ab
MYOMAS
of lung, x-ray study, [Sherman] 1283—ab
MYOSARCOMAS
of lung, X-ray study, [Sherman] 1283—ab
MYOSITIS
Multiple: See Dermatomyositis
MYOTONIA Dystrophica: See Dystrophy, muscular
MYXOMA, 940

MEDICOLEGAL ABSTRACTS

ALCOHOLISM: See Drunkenness
BOOKS
medical; admissibility in evidence, 1361
BURNS: See Malpractice
CHIROPRACTIC
fraudulent intent; evidence of, 674
licenses; board ruling; effect of, 1361
licenses; educational requirement; four year course, 1361
licenses; reciprocity, 1361
medicine; practice of by chiropractor, 1362
CONTRACTS
limitation on medical practice; injunction to restrain breach, 132, 764
hospitals; agreement not to compete, 132
CORPORATIONS
optometry; right to practice, 590
CRIMES
chiropractor; confidence game, 674
CYSTOSCOPY
malpractice in relation to, 498

Medicolegal Abstracts—Continued
DRUNKENNESS
chemical tests; admissibility in evidence, 313, 393, 1018
EVIDENCE
books, medical; admissibility, 1361
drunkenness; chemical tests, 313, 393, 1018
Privileged communications: See Privileged Communications
scientific tests; drunkeness, 313, 393, 1018
witnesses; experts; qualification in general, 393
witnesses, expert; qualifications; osteopath's need for state licensure, 915
HEMORRHAGE
cerebral; delayed effect of trauma, 1361
cerebral; workmen's compensation in relation to, 1361
HOSPITALS, CHARITABLE
insurance, indemnity, as affecting liability, 1515
liability in general, 1515
HOSPITALS IN GENERAL
agreement not to compete, 132
good will; sale of hospital necessarily includes sale of good will, 132
INJUNCTIONS
agreements in restraint of professional practice; restraint of violation, 132, 1362
INSURANCE, INDEMNITY
charitable hospitals; liability as affected by, 1515
INTOXICATION: See Drunkeness
LIBEL AND SLANDER
physician charged with unorthodox practices; licensure in relation to, 492
MALPRACTICE
after care; required of surgeon, 1361
burns; roentgen rays, 835
cervical artery; failure to ligate, 1361
childbirth; after care; delay, 1361
diagnosis, mistake in, 915
evidence; res ipsa loquitur, 493, 835
evidence; witnesses, expert; credibility, 493
evidence; witnesses, expert; necessity for, 493
evidence; witnesses, expert; osteopath's competency to testify against doctor of medicine, 915
evidence; witnesses, expert; qualifications, 493
evidence; witnesses, lay; negligence not provable by, 835
fractures; diagnosis; mistake in, 915
fraudulent representations; accrual of right of action, 1201
gall bladder; failure to remove; fraudulent concealment of, 1201
joint liability; of general practitioner and specialist, 915
limitation of actions; accrual of right of action, 492, 1201
limitation of actions; concealment of right of action, 492, 1201
osteopaths; after care; required of surgeon, 1361
osteopaths; cervical artery; failure to ligate, 1361
osteopaths; childbirth; after care; delay, 1361
roentgen rays; burns, 492, 835
roentgenograms; failure to take a sufficient number, 915
skill and care; standards, physicians, 835
witnesses, expert; necessity for, 835
warts; removal of; burns resulting, 835
MEDICAL PRACTICE ACTS
chiropractic; as practice of medicine, 1362
injunctions; restraint; of violations, 1362
MEDICAL SCHOOLS: See Schools, medical
MOTOR VEHICLES
drunken driver; chemical tests; admissibility in evidence, 313, 393, 1018
drunken drivers; chemical tests; voluntary submission, 393, 1018
OPTOMETRY
corporations; practice by, 590
professional status of, 590
PRIVILEGED COMMUNICATIONS
criminals' right to bar testimony of physician, 1276
gunshot wounds, 1276
patient only may claim, 1276
waiver; statute requiring report of gunshot wounds, 1276
ROENTGEN RAYS
burns; malpractice, 492, 835
burns; statute of limitations in relation to, 492
SCHOOLS
chiropractic; as medical school, 198
medical; chiropractic school as, 198
SCIENTIFIC TESTS: See Evidence
STATUTE OF LIMITATIONS: See Malpractice, limitation of actions
TRAUMA
hemorrhage; cerebral; delayed effect, 1361
WORKMEN'S COMPENSATION ACTS
cerebral hemorrhage, 1361
medical examinations; rights of employer, 916
ZONING REGULATIONS
syndicated medical columns; preparation in home as business, 834

N

933-F: See Piperidylmethylbenzodioxane
N.N.R.: See under names of specific products
NAILS
cancer of, [Bayer] 688—ab
congenital absence of finger nails, 612
fragile finger nails, gelatin for, [Tyson] 1520—ab
polish remover, danger from swallowing it and psychoneurosis, 941
ridging of finger nails, 514; 1128
NARCOTICS: See also Harrison Narcotic Act; Morphine
addiction, 973—E
addiction and drug habituation differentiated and defined by WHO Committee, 973—E
addiction, cause of death: abrupt withdrawal or large dose of morphine? 405
NASAL: See Nose
Spray: See Atomizer
Tube: See Duodenal Tube
NASOPHARYNGITIS: See Colds
NASOPHARYNX: See also Adenoids
conditions, radiation exposure of physician in, [Rubin] 1203—ab
NATIONAL: See also American; International; list of societies at end of letter S
Academy of Medicine, Colombia, (new members), 672
Academy of Sciences, leaders in medical sciences honored by, 120
Advisory Mental Health Council, 562; 1503
Board of Medical Examiners, (consolidated examination of state board and) *447; (state boards which endorse certification by) *471; *472; 475—E; (results of examinations, 1916-1921, 1922-1949) *472; *473; (diplomats from individual medical schools) *474; (new officers elected) 661
Boy Scout Jamboree (2nd) 1950, 657—E
Cancer Institute (research grants) 1503
Conference of Aging (1st), 820; 1264; 1490
Conference on Social Service (2nd) Belgium, 489
Congress of Italian Society of Obstetrics and Gynecology (40th) 387
Congress of Italian Society of Phthisiology (9th) 196
Congress of Surgery, Italy, discuss collapse and shock, 1194
Convention of Gastroenterology, Colombia, 1016
Council to Combat Blindness, Inc., research grants, 1190; 1438
Defense: See Armed Forces; Civilian Defense; Korean War; Medical Preparedness; World War II
Education Program of A.M.A.: See American Medical Association
Emergency Medical Service, A.M.A. Council on: See American Medical Association
Foundation for Infantile Paralysis: See Foundations
Health Program, quality of medical care in: American Public Health Ass'n recommendations, 986; 1262—E; [Dickinson] *1274
Health Service, England, (cost) 310; (advertising) 746—E; "granny racket") 828; [Irons] 977; **(report to A.M.A. Board of Trustees) [Martin & others] *1420; [Diehl & others] *1492**
Hearing week, 119—E
Influenza Strain Study Center, 821
Institute of Mental Health, census of mental patients, report, 662
Institutes of Health: See Health
Medical Advisory Board, 1418
Research Council, (Committee on Problems of Alcohol) 666; (A.M.A. representatives appointed to) 749
Research Council of Canada, (fellowships) 1507
Research Foundation for Fertility: See Foundations
Safety Council, safety first on Fourth of July, 818—E
Science Foundation: See Foundations
Security Council, (A.M.A. resolution on appointihg medical advisory committee to), 982; 1098
Security Resources Board, (first meeting of all organizations concerned with national emergency blood program), 478; (A.M.A. expresses appreciation of) 982; 1098; (scope of) 1419
Society for Medical Research seeks funds, 907
Tuberculosis Association, officers elected, 120
NATIONS, United: See United Nations
NATROVIN
solution in oil with benzyl alcohol 4%, N.N.R., (Bio-Intrasol) 970
NAUSEA: See Migraine; Motion Sickness; Vomiting
NAVY, UNITED STATES: See also Armed Forces
Aston (Melville J.) retires, 303
atomic radiation data available, 187
graduate training program, 750; 1186; 1435
Hospitals: See Hospitals
internships available, 187; 661
medical center, lectures, 661

NAVY, UNITED STATES—Continued
medical officers certified by American boards, 661
medical officers, Dr. Bernice Walters first woman assigned aboard ship, 1502
medical officers' duty under instruction, 122
medical officers, 17 women doctors to active duty, 750; 1502
medical officers training reassignments, 303
medical recruits, 1263
medical reserve officers being called into service, 1185; 1186
plague survey, Venezuela, 1186
radioactive gallium research by, 122
reserve officers asked to volunteer for active duty, 1186
reserve officers, course in aviation for, 750
reserves, 1348
Seaman (Louis Livingston) Prize awarded to Capt. Shaw, 1502
training duty for reserve ensign (HP) officers, 1435
training for reserve entomologists and malariologists, 661
tuberculosis among its employees, 1003
NEBRASKA Medical Foundation: See Foundations
NECK: See also Throat
cysts (multiple sebaceous) electric current treatment, 610
NECROLOGY: See Deaths at end of letter D
NECROSIS: See Bladder; Intestines; Kidneys
NEEDLE
biopsy of liver, [Weisbrod] 680—ab
tattooing, serum jaundice transmitted by, [Roberts] 498—ab
technic of cholangiography, [Carter & Gillette] *952
NEEDY: See Medically Indigent
NEGROES
Feeling All Right (film review), diagnosis and treatment of syphilis, 762
neonatal sickle cell anemia, [Frazier & Rice] *1065
oxycephaly in, [Bodian] *15
physicians, fellowships for, 1189
NELSON, R. T., Jr., their "Magic Spike" (virilium tube) gets spiked, 571—BI
NEMBUTAL: See Pentobarbital
NEO-ANTERGAN MALEATE
N.N.R., (description) 1156; (Merck) 1156
NEOPLASM: See Cancer; Sarcoma; Tumors; under region or organ affected
NEOPRENE
allergy to surgeon's rubber gloves, 1296
NEOSTIGMINE
dosage for paroxysmal auricular tachycardia, (reply), [Waldman & Pelner] 514
treatment in multiple sclerosis, [Schumacher] *1247
NEPHRECTOMY: See Kidneys tuberculosis
NEPHRITIS: See also Pyelonephritis
acute, toxic products used in dry cleaning cause? 1220
anuric, postabortal, exchange transfusion in, France, 194
glomerular, rheumatic, [Mayer] 1374—ab
Masugi's (nephrotoxic), [Roda] 687—ab
Tuberculous: See Kidneys, tuberculosis
NEPHRON Nephrosis, Lower: See Kidneys diseases
NEPHROPATHIA epidemica: See Kidneys diseases
NEPHROSCLEROSIS
arteriolar, and cardiac hypertrophy, [Switzer] 1447—ab
NEPHROSIS: See Kidneys, disease
NERVES: See also Nervous System; Neur—
Anesthesia: See Anesthesia
compression and paresthesias, Brazil, 489
Deafness: See Otosclerosis
Excision: See Neurosurgery
fibers, histamine as a constituent of, [Von Euler] 143—ab
optic atrophy (syphilitic), 376—E
Paralysis: See Paralysis
Peripheral: See Paralysis, facial
phrenic, electrophrenic respirator in acute bulbar poliomyelitis, [Sarnoff & others] *1383
Plexus: See Preaortic Plexus
Reflexes: See Reflexes
Roots: See also Guillain-Barré Syndrome
roots, radicular symptoms in poliomyelitis, [Neumann] 1525—ab
Sciatic: See Paralysis, sciatic; Sciatica
splanchnicectomy (thoracolumbar) treatment of essential hypertension, 1532
Surgery: See Nerves, vagotomy; Neurosurgery
Syphilis: See Neurosyphilis
Trigeminal: See Neuralgia
Ulnar Nerve and Soft Tissue Defect, (film review) 1274
vagotomy, [Beal] 594—ab
vagotomy and antrum resection for Mann-Williamson ulcer, [Storer] 1286—ab
vagotomy, and partial pylorectomy for peptic ulcer, [Beattie] 1212—ab
vagotomy effect on human colon, [Grace] 202—ab
vagotomy, follow-up of patients after, [Troell] 930—ab
NERVES—Continued
vagotomy for gastrojejunal ulcer, [Stevens & Kipen] *1138
vagotomy, for peptic ulcer vs. gastric resection, [Garner] 772—ab
vagotomy, insulin test results after, [Weinstein] 842—ab
vagotomy, late diarrhea after, [Thurnher] 210—ab
vagotomy plus gastroenterostomy of pyloroplasty for peptic ulcer, [Collins] 140—ab
vagus section, insulin test for, [Brooke] 207—ab
NERVOUS SYSTEM: See also Brain; Nervous System, Sympathetic; Spinal Cord
central, lesions in Brazilian blastomycosis, 390
central, porphyria, [Brage] 688—ab
changes in diabetes mellitus, [DeJong] 923—ab
Surgery: See Neurosurgery
Syphilis: See Neurosyphilis
NERVOUS SYSTEM, SYMPATHETIC
continuous lumbar sympathetic block, [Ruben] 678—ab
effect of sympatholytic drug on peripheral circulation, [Wakim] 597—ab
Surgery: See Sympathectomy
NEURALGIA
trigeminal, infiltrate gums with phenol solution in glycerin, [Solé Sagarra] 850—ab
NEURITIS
diabetic, 857
polyneuritis, complicating infectious mononucleosis and Guillain-Barré syndrome, [Creaturo] *234
Sciatic: See Sciatica
NEUROCIRCULATORY Asthenia: See Asthenia, neurocirculatory
NEUROFIBROMATOSIS
Phacomatosis, Netherlands, 129
NEUROLOGY, Surgery in: See Neurosurgery
NEURONITIS
virus during pregnancy, 942
NEUROPATHY, Diabetic: See Diabetes Mellitus
NEUROPSYCHIATRY
changes after ACTH therapy, [Hoefer & Glaser] *620
NEUROPSYCHOSIS: See Psychoneurosis
NEUROSIS: See also Psychoneurosis
Cardiac: See Asthenia, neurocirculatory
cost in Denmark, 913
factors in skin disease, [Brandt] 843—ab
Vegetative: See Erythredema
NEUROSURGERY: See also Brain surgery; Nerves; Sympathectomy
new approach for treatment of otosclerosis, [Bordes-Valls] 136—ab
resection of preaortic plexus in angina pectoris, [Arnulf] 1454—ab
NEUROSYPHILIS: See also Tabes Dorsalis
asymptomatic, 1297
treatment, [Susman] 399—ab
treatment hyperthermia-arsphenamine-bismuth [Nørgaard] 1033—ab
treatment, penicillin, [Gammon] 1364—ab
treatment, penicillin, fatal Herxheimer reaction, [Shaffer] 201—ab
NEUTRALIZATION TEST
in virus and Rickettsial diseases, [Milzer] *220
NEUTROPENIA: See also Agranulocytosis, Acute
leukocyte count in pathergic diseases, Brazil, 1015; 1196
NEVUS
pigmented, 940
NEW AND NONOFFICIAL REMEDIES, Drugs accepted for: See under names of specific drugs
NEW GROWTHS: See Tumors
NEW YORK
Academy of Medicine (post graduate medical education radio program), 1189
Academy of Sciences (new building), 305
Health Insurance Plan of Greater New York, first 3 years, [Baehr] *637; 658—E; [Kleefield] 1445—C
Medical College (fellowship awards), 905
State Society of Pathologists vs. commercial laboratory, code of ethics and restraint of trade, 1417—E
NEWBORN: See Infants, Newborn
NEWMANN Expansometer, 181
NEWSPAPERS: See also Journals
edition to be dedicated to county doctors, Illinois, 189
medical-press-radio conference, 1436
tribute to, in fight against socialism, [Henderson] *783
NIACIN: See Acid, nicotinic
NICKEL
alloy, cause discoloration of skin under gold rings, 1298
NICOLAS-Favre-Durand Disease: See Lymphogranuloma, Venereal
NICOTINIC ACID: See Acid
NIKETHAMIDE
treatment of hiccup, 214
NIPPLE: See under Breast
NIRVANOL
chemical structure and sensitivity, [Chaiken] 1446—C
NISULFAZOLE
N.N.R., (description) 1155; (Breon) 1155
NITRATES
mannitol hexanitrate, N.N.R., (Physicians' Drug and Supply) 1486
well waters and methemoglobinemia in infants, 476—E
NITROFURAZONE, N.N.R., (Eaton) 1486
NITROGEN
balance in hepatic disease, 1194
utilization on feeding casein hydrolysate, [Alper] 598—ab
NITROGEN MUSTARD
treatment of acute disseminated lupus erythematosus, (reply), [Goldberg] 782
treatment of bronchogenic cancer, [Kent] 842—ab; [Lynch] 1030—ab
treatment of lymphomas, [Alpert] 1021—ab
treatment of malignant blood diseases, [Tsevrenis] 932—ab
NITROGLYCERINE: See Glyceryl Trinitrate
NITROPHENOL: See Dinitrophenol; Paranitrophenol
p-NITROSULFATHIAZOLE, N.N.R., (description) 1155; (Breon) 1155
NOBEL Prize: See Prizes
NOMENCLATURE: See Terminology
NORTH CAROLINA
plan of pediatric care, [London & Davison] *1232
NORTHWESTERN UNIVERSITY
Medical Center (new veterans research hospital part of), Chicago, 304
NORWEGIAN
Medical Association radium hospital, 757
parliament debate on quackery, 1194
NOSE: See also Nasopharynx; Otorhinolaryngology
Colds: See Colds; Hay Fever
diseases and adenoids, [Küstner] 209—ab
mucosa, methylhexamine (forthane), N.N.R., (description) 1156; (Lilly) 1156
NOSTRUMS: See also Quackery
patents, commissions, rebates and secret remedies, 153—ab; 1320—ab
NOVOCAIN: See Procaine Hydrochloride
NUMBNESS
of both feet, 1458
of fingers and blanching, 1040
NURSES AND NURSING
census of public health nurses, 1503
number of nurses needed (750) by Army and Air Forces, 1419
psychiatric training, Ky., 1352
schools of practical nursing (classified by states), *37
schools of nursing, statistics, *35; *36; 117—E
schools of nursing, Woman's Auxiliary scholarship, Delaware, 1004
service, including in prepayment plans, A.M.A. resolution on, 986
skin lesions in nurses from handling streptomycin, [Schäfer] 504—ab
statistics on, in hospitals, *35; *36; 117—E
student nurses, statistics on, *35; *36; 117—E
supply, shortage, Sweden, 1444
to be trained for hearing testing by Hearing Institute, Illinois, 823
NUTRITION: See also Diet; Food; Infants, feeding
A.M.A. Council on Foods and Nutrition: See American Medical Association
Annual Nutrition Workshop (3rd), Illinois, 304
certifying Board in Human Nutrition established, 754
Deficiency: See also Rickets; Pellagra; Vitamins deficiencies
deficiency; melalgia (burning feet), [Vernon] *799
fallacies (popular), [Magee] 320—ab
HANDBOOK OF NUTRITION, (vitamin D) [Jeans] *177; (fat-soluble vitamins A, E K) [Butt] *236; (fluid therapy) [Darrow & Pratt] *365; *432; (soils and health) [Maynard] 807; (mineral deficiencies) [Youmans] *1252; (foods of animal origin) [Howe] *1337
industrial efficiency and, [Haldi] 138—ab
malnutrition in hospital patient, (film review), 832
Society of Pathology of Digestion and Nutrition, Spain, 758
sparing action of fat, 1160—E
study of rheumatic fever victims, Utah, 1438
surveys, iron and anemia, [Youmans] 394—ab
symposium on biological significance of lipids, 1438
value of raw eggs, 215
Vitamins in: See Vitamins
NYLON
tissue to cure inoperable eventrations, [Michaux] 603—ab

O

OAK, Poison: See Rhus
OATH of office of A.M.A. president, 900—E
OBESITY
Marañon syndrome, Spain, 758
tiredness and overweight, 696

OBESITY—Continued
treatment, 1298
treatment, abandon dinitrophenol as reducing agent, 609
treatment, reducing diet for cardiac patient, (reply) [Braunlich] 1222
water retention and diet relation to, 1381
OBITUARIES: See list of Deaths at end of letter D
OBSTETRICS: See also Abortion; Cesarean Section; Labor; Pregnancy; Puerperium
advances in, [Stark] 313—C
American Board of: See American Board
A.M.A. resolution on residency training in; 1079; 1092
Anesthesia in: See Anesthesia
aureomycin in, [Guilbeau, Jr. & others] *520
Italian Society of, national congress (40th), Italy, 387
Revista Colombiana de Obstetricia y Ginecologia (1st issue) Colombia, 666
OCCUPATIONAL
Dermatoses: See Industrial Dermatoses
Disease: See Industrial Diseases
Health: See Industrial Health
OCCUPATIONAL THERAPY
school of, U. Pennsylvania establishes, 1006
schools of, *115; 118—E
OCULAR Symptoms; Test: See Eyes; Vision
ODDI'S SPHINCTER: See Sphincter Muscles
OFFICERS: See Armed Forces; Army, U. S.; Aviation, U. S. Air Forces; Navy, U. S.
OGATA, TOMIO, fellow from Japan, 379
OGILVIE, HENEAGE on "granny racket," England, 828
OHIO: See Cleveland
OIDIUM albicans: See Moniliasis
OIL: See also Cod Liver Oil; Liver oil
removing from syringes, 327
OKLAHOMA Medical Research Foundation: See Foundations
OLD AGE: See also Life duration; Physicians, veteran
auricular fibrillation in senile heart, 1382
black hairy tongue in man 70, [Lefkovits & Lapidus] *1482
International Congress of Gerontology (1st), Belgium, 191; 759; 1444
Life with Grandpa (film review), 762
liver extract for aged persons, 1298
lobectomy for bronchiectasis in patient 82, [Rosenblatt & others] *552
mesenteric occlusion, resect 6 feet of intestines in man 72, [Koon] *1498
National Conference on Aging, 1st, 820; 1264; 1490
osteoporosis in woman 73, 1382
pensions, Townsend Plan for, 748
psychology of senility, [Granick] 922—ab
rupture of pulmonary aneurysm with patent ductus arteriosus in woman 67, [Lindert & Correll] *888
sour stomach in aged man, 1222
strangulated Meckel's diverticulum in femoral hernia in woman 62, [Kazmann & Barnett] *1335
tuberculous infection from birth to, [Beaven] 922—ab
OLIVER, Sir THOMAS, removes lead from skin by machine with positive and negative pole, 1534
O'MALLEY Award: See Prizes
OPERATION: See Surgery; under names of specific organs and diseases
Early Rising after: See Convalescence
Illegal: See Abortion, criminal
OPHTAZOL
treatment of trachoma, [Tsopellas] 1213—ab
OPHTHALMIA neonatorum: See Conjunctivitis, infectious acute in newborn
OPHTHALMOLOGY: See also Eyes; Vision
research grants available from National Council to Combat Blindness, 1438
OPIUM: See Morphine
OPPENHEIM Lecture: See Lectures
OPSONOCYTOPHAGIC test for brucellosis in multiple sclerosis, [Eisele & others] *1473
OPTIC FORAMEN
meningioma causing blindness, [Craig] 501—ab
OPTIC NERVE: See Nerves
OPTICAL INDUSTRY
trade practice in, 1002
OPTOMETRY: See also Medicolegal Abstracts at end of letter M
optometrist treatment of veterans allowable, 1185
ORAL CAVITY: See Mouth
ORANIXON
N.N.R. (Description) 655; (organon) 655
ORATIONS: See Lectures
ORBIT
tumors, epidermoid, [Thacker] 920—ab
ORCHIECTOMY: See Testis excision
ORCHITIS: See Testis inflammation
ORGANIZATIONS: See Societies, Medical; list of Societies and Other Organizations at end of letter S
ORGANIZED MEDICINE: See American Medical Association; Societies, Medical
ORNITHOLOGY: See Birds; Psittacosis
ORTHO Award: See Prizes
ORTHOPEDICS: See also Bones; Foot; Fractures
ORTHOPEDICS—Continued
appliances symposium on, Pittsburgh, 1353
Brazilian Society of Orthopedic Surgery, Brazil, 666
surgery, course in, Belgium, 759
ORTHOXINE: See Methoxyphenamine
OSBORNE, ARTHUR S., science attaché, American Embassy in London, 481
OSBORNE Fellowship: See Fellowships
OSTEOGENESIS IMPERFECTA: See Fragilitas ossium
OSTEOMA
in occipital region, 513
OSTEOMYELITIS
chronic, penicillin and primary closure in, [Howard] 317—ab
chronic traumatic, streptomycin for, [Howard] 317—ab
OSTEOPATHS
examined for licensure in U.S., 1949, *446
examined in basic sciences, 1949, *470; (1927-1949), *471
registered by state boards, 1944-1949, *460; *465
OSTEOPOROSIS
in woman 73, 1382
treatment? 1457
OSTEOSARCOMA
berrylium oxide causes, [Dutra] 1021—ab
OTITIS MEDIA
tuberculous, streptomycin for, [Siirala] 686—ab
OTORHINOLARYNGOLOGY
French Congress of (48th), 1354
OTOSCLEROSIS
cause of rejection for life insurance, 1534
treatment, fenestration, results, [Jongkees] 931—ab; 1220
treatment, new neurosurgical approach, [Bordes Valls] 136—ab
OVARY
cancer, button operation for ascites with, (reply), [Kornblum] 782
cancer in mother and five daughters, [Liber] 768—ab
surgery, artificial menopause in young woman (19 years old), use of estrogens, 326
tumors, seminoma (Mathieu) 931—ab
OVERWEIGHT: See Obesity
OVERWORK: See Fatigue
OVIDUCTS
insufflation and sterility, 1040
patency, phenolsulfonphthalein test for, [Speck] *357
roentgen study, as cause of endometriosis, [Teilum] 1289—ab
OVULATION
methyl-testosterone given before, in dysmenorrhea, [Filler] *1235
OVUM: See Embryo
OXALATES
prevent caries, [Twedt] 1027—ab
OXIDATION
of vitamin A, synthesis of visual purple, 559—E
OXYCEPHALY, [Bodian] *15
OXYGEN: See also Oxidation; Pneumoperitoneum
alcoholic intoxication and, 609
deficiency, acute ischemia of limb after plasma transfusion, [Dudley] 399—ab
in Blood: See Blood
quotient: See Metabolism
tension effect of altitude on alcohol tolerance, [Newman] 141—ab
therapy, Airco Oxygen Therapy Regulator, 440
therapy in kerosene intoxication, [Reed] 1202—ab
therapy, Mechanaire Iceless Oxygen Tent, Model 30, 971
therapy, mental changes with, in anoxemia, [Comroe & others] *1044
therapy, Walton Oxygen Tent Humidifier, 971
OXYLIN TABLETS
warning on, (Council report), 241
OXYURIASIS
treatment, 511
vaginal discharge in girls 6 and 8 due to, 1533
vulvovaginitis due to, (reply) [Rosenberg] 696

P

PAS: See Acid, *p*-aminosalicylic
PACIFIERS
objections to use by young children, 1040
PAIN: See also Dysmenorrhea; Headache; Neuralgia; Sciatica; under names of specific organs and regions
after cholecystectomy, 150
after radical mastectomy, 782
radicular, in poliomyelitis, [Neumann] 1525—ab
Relief of: See also Anesthesia
relief of intractable pain with electric shock therapy, [Catalano-Nobili] 210—ab
relief of phantom pain, sympathectomy for, [Kallio] 1213—ab
relief of phantom limb by excising posterior central cerebral convolution, [Stone] 1449—ab
relief of, unilateral prefrontal lobotomy for, [Rowe] 1027—ab
PAINTING: See also Art
painting body for play with Venus Rich-gold-Brilliant, 327
PAINTON Fellowship: See Fellowships
PALATE
cleft, American Association for Cleft Palate Rehabilitation, Chicago, 306
PALSY: See Paralysis
PAN AMERICAN
leprosy conference, 665
Sanitary Bureau plague survey in Venezuela, 1186
PANARTERITIS
disseminated necrotizing, [Winkelman] 597—ab
PANCREAS
aberrant, tissue causing ulcer symptoms, [Busard] 1117—ab
aberrant tissue in intussusception, [Keeley] 1117—ab
Disease: See Diabetes Mellitus
inflammation (acute) with hyperlipemia, [Gardner] 1285—ab
inflammation, chronic relapsing pancreatitis, [Richman] 678—ab
Secretion: See Insulin
tumors, insuloma with absence of hypoglycemia, [Fries] 931—ab
PANCREATIN
panteric, use in treatment of diabetes? 327
PANCREATITIS: See Pancreas inflammation
PANTERIC
use in treatment of diabetes? 327
PANTOJA, C. A., new member of medical society, Colombia, 672
PANTOTHENATE: See Acid, panthothenic
PAPAVERINE HYDROCHLORIDE
treatment of multiple sclerosis, [Schumacher] *1242
PAPER: See Newspaper
PAPILLOMA
etiology; recently irradiated skin, [Walter] 685—ab
premalignant lesions of ampulla of Vater, [Cattell] 502—ab
recurrent, of larynx, 405
PARA-AMINOSALICYLIC ACID: See Acid
PARADIONE: See Paramethadione
PARAGANGLIOMA: See Pheochromocytoma
PARALDEHYDE
contraindicative, 782
PARALYSIS: See also Hemiplegia; Paraplegia
Agitans: See Parkinsonism
beer, "cellulose dope" and, 513
cerebral, "Cerebral Palsy Equipment," 1190
cerebral, clinics, Michigan, 1005
cerebral, course in, Chicago, Illinois, 1004
cerebral, open center, Tennessee, 1007
cerebral palsy committee in Nebraska, 125
cerebral palsy, Elks National Foundation scholarships, 1353
cerebral palsy hospital, North Carolina, 306
cerebral palsy, in infants, mephenesin (Tolserol) in, [Frantz] *424
cerebral palsy, workshop in, New York, 824
cerebral, scholarships for cerebral palsy training, 565
cerebral; test for mental maturity of children with, New York City, 664
diphtheritic, toxoid intraspinally for, [Thiele] 1121—ab
facial, in infectious mononucleosis and Guillain-Barré syndrome treated with BAL, [Creaturo] *234
facial (peripheral) palsy, multiple attacks in 3 brothers, [Stone] *1154
Infantile: See Poliomyelitis
jamaica ginger, Maurice I. Smith study on etiology of, [Viets] 391—C
local, in children after injections, [Martin] 1370—ab
postoperative, in upper extremity, [Ewing] 503—ab
Respiratory: See Poliomyelitis, bulbar
sciatic neonatal [Fahrni] 1211—ab
Spastic: See Paralysis, cerebral
unilateral exercise of well arm improves, 559—E
PARAMETHADIONE (Paradione)
N.N.R., (description) 970; (Abbott) 970
PARAMETRITIS
treatment, aureomycin, [Guilbeau & others] *522
PARANITROPHENOL
treatment of pruritus ani, [Belnap] 1452—ab
PARAPLEGIA
longevity of, [Dane] 208—ab
PARASITES
diseases, laboratory diagnosis, 662
Intestinal: See Intestines
PARATHION
hazard of aerial spraying of insecticides, 1158—E
PARATHYROID
hyperparathyroidism, [Waife] 316—ab
pseudohypoparathyroidism, Seabright bantam syndome, [Lowe] 396—ab
PARATYPHOID
treatment with chloramphenicol, 610
PARENAMINE
N.N.R., (Winthrop Stearns) 897
PARESTHESIA
Nerve compression and, Brazil, 489

PARIS
Fournier Institute conference on gonorrhea, France, 911
PARKINSONISM, 1126
treatment, spinal pyramidotomy, [Putnam] 839—ab
PAROTID REGION
tumors, [Botsztejn] 209—ab
tumors (benign mixed) removal, [Brown] 928—ab
PAROTITIS, EPIDEMIC (mumps) [Monteiro de Barros] 1216—ab
complications: orchitis, diethylstilbestrol in, [Norton] *172
diagnosis, laboratory, [Milzer] *219
treatment, aureomycin, [Langley & Bryfogle] *1333
PARTURITION: See Labor
PASTEURELLA Tularensis Infection: See Tularemia
PASTEURIZATION: See Milk
PASTORAL Medicine: See Clergymen
PATIENTS
commissions, rebates and secret remedies, 153—ab; 1320—ab
Joint Commission for Improvement of Care of, 1506
PATERNITY: See Families
PATHERGY
leukocyte count in, 1015; 1196
PATHOLOGISTS
A.M.A. resolution on exfoliative cytologic diagnostic procedure, 1086; 1095
California Society of, to perform examinations on indigent patients, 563
New York State Society of, vs. commercial laboratory; code of ethics and restraint of trade, 1417—E
PATHOLOGY: See also Disease
clinical, International Congress of Clinical Pathology, London, 306
clinical, laboratory in Atlanta, Ga., 1350
of deficiency diseases, 1358
recognition as practice of medicine, A.M.A. resolution on, 1080; 1089
Registry of Hepatic Pathology established, 485
PATIENTS: See also Disease; Medical Service; Surgery; under names of specific diseases
Chronically Ill: See Disease, chronic
consent to operations, 1344—E
Convalescence: See Convalescence
Transport of: See Ambulance
PAUTRIER-WORINGER SYNDROME, [Agress & Fishman] *957
PAVATRINE
effect on motor activity of small intestine, [Chapman & others] *629
PEACHES
Diet-Delight Brand, (halves & sliced) 439
PEARS
Diet-Delight Brand, 439
PECTIN
use to delay excretion of penicillin, 941
PEDIATRICS: See also Children; Infants
care under North Carolina plan; American Academy survey, [London & Davison] *1232
cathartics in practice of, 1040
Italian Society of, (20th congress), 129
Lichtenstein's valedictory address at Karolinska Institut, 1111
outpatient clinic, New York City, 905
recent advances, Norway, 131
state board examinations, A.M.A. resolution on, 1086; 1093
PELLAGRA
in Turkey, 312
PELVIS: See also Hip
surgery, fatal postoperative tetanus; penicillin or antitoxin treatment ineffective, [Van Duine] *175; (challenge use of tetanus toxin to booster immunity) [Workman; Fraser] 761—C
PENICILLIN
Fleming discusses newer types at Italian Congress, 1443
G, Crystalline Procaine, In Oil, N.N.R., (Bio-Remo; Parke, Davis) 897
G, Crystalline Sodium (buffered), N.N.R., (Lederle) 897
G, procaine in gonorrhea treatment, [Hogan] 1368—ab
G, use penicillin O in patients hypersensitive to, [Volini & others] *794
in Blood: See Blood
incompatible antibiotics, 816—E
O, use in patients hypersensitive to penicillin G, [Volini & others] *794
pectin to delay excretion of, 941
toxicity; fatal Herxheimer reaction, [Shaffer] 201—ab
toxicity; intestinal hemorrhage and necrosis, 1222
toxicity; polycythemia, no published record of, 512
toxicity; unusual reaction to, [Felder & Felder] *361
toxicity vs. propylthiouracil as cause of purpura, [Fewell & others] *891
Treatment: See also Breast inflammation; Diphtheria; Endocarditis; Gonorrhea; Lungs abscess; Neurosyphilis; Osteomyelitis; Pneumonia; Streptococcus infection; Syphilis; Wounds
PENICILLIN—Continued
treatment contraindicated in epidermophytosis, 512
treatment ineffective in leptospirosis (Weil's disease), [Batchelor & Todd] *21
treatment ineffective in tetanus, [Van Duine] *175; [Workman; Fraser] 761—C
treatment not cause of arthritis 1 year later, 1038
treatment, oral, of gonococcic urethritis, [Horne] 1288—ab
treatment plus fever in early syphilis, [Plotke] 919—ab
treatment, plus silver nitrate also sulfathiazole to prevent gonorrheal ophthalmia of newborn, [Watts & Gleich] *635; [Lehrfeld] 1360—C
treatment, report on 726 patients retreated after, [Thomas] 919—ab
treatment, resistant pathogenic cocci, [Berger] 210—ab
treatment, resistant staphylococcus aureus, [Beigelman] 925—ab
treatment, subconjunctival injection of infected corneal ulcer, [Sorsby] 503—ab
vaccine lymph purified by, [Rao] 848—ab
PENICILLINASE
producing staphylococci, [Martin] 1215—ab
PENIS: See also Circumcision
cancer, prophylaxis, [Bleich] *1054
Erection of: See Priapism
plastic induration, operation for Peyronie's disease, [Lowsley] 1521—ab
PENNSYLVANIA, University of: See University
PENTOBARBITAL
nembutal calcium, N.N.R., (description) 1343; (Abbott) 1343
nembutal, N.N.R., (description) 1343; (Abbott) 1343
sodium, N.N.R., (Miller) 897
PENTOTHAL: See Thiopental
PENTYLENETETRAZOLE: See Metrazol
PEPTIC ULCER
complications; cerebral disease, [Staemmler] 504—ab
etiology: heterotopic pancreatic tissue [Busard] 1117—ab
etiology, psychologic, gastric ulcer, Sweden, 759
hereditary factors in, [Doll] 1370—ab
in twins, [Goodrich] 844—ab; [Ivy] 1205—ab
perforated, sudden episode of shock, 148
perforation, factors associated in, [Strang] 1371—ab
Rorschach pattern in duodenal ulcer, [Kaldegg] 929—ab
surgical treatment of gastroduodenal ulcer, evaluated, [Miller] 1287—ab
surgical treatment of gastrojejunal ulcer, gastroenterostomy, gastric resection and vagotomy, [Stevens & Kipen] *1138
surgical treatment, vagotomy, [Beal] 594—ab
surgical treatment, vagotomy and antrum resection for Mann-Williamson ulcer, [Storer] 1286—ab
surgical treatment, vagotomy and gastric resection compared, [Garner] 772—ab
surgical treatment, vagotomy and partial pylorectomy, [Beattie] 1212—ab
surgical treatment, vagotomy, follow-up after, [Troell] 930—ab
surgical treatment, vagotomy, insulin test results [Weinstein] 842—ab
surgical treatment, vagotomy plus gastroenterostomy or pyloroplasty, [Collins] 140—ab
treatment, banthine, [Grimson & others] *873
treatment, continuous drip with fresh citrated milk vs. magnesium, [Clark] 1120—ab
treatment, goat's milk in, 513
treatment, hexamethonium iodide, [Kay] 929—ab
treatment of gastric ulcer, follow-up study, Denmark, 1015
PEPTIDES
linkage of proteins to amino acids, 1071—E
PERFORATION: See Peptic Ulcer
PERIARTERITIS
nodosa, clinical diagnosis, [King] 1022—ab
nodosa, disseminated necrotizing panarteritis, [Winkelman] 597—ab
nodosa, peritonitis during ACTH therapy, [Beck] 1518—ab
nodosa, suspected, 611
PERIARTHRITIS: See Arthritis
PERICARDITIS
acute nonspecific benign, [Evans] *954
diagnosis (mistaken): "pericardial friction rub," [Schnur] *969
rheumatic, treatment, 1382
tuberculous, streptomycin for, [Tapie] 1215—ab
tularemic, [Meredith] 1278—ab
PERICARDIUM
friction "rub" mistaken diagnosis of pericarditis, [Schnur] 1969
PERIDONTOCLASIA, 859
PERIODICALS: See Journals
PERITONEUM: See also Pneumoperitoneum
irrigation, artificial kidney for carbon tetrachloride, [Farrier & Smith] *965
PERITONEUM—Continued
irrigation, clinical experience with artificial kidney, [Merrill] 1519—ab
parietal, stab sensation on stimulation of, [Auersperg] 1290—ab
sulfonamides used in Brazil, 197
Tuberculosis: See Peritonitis, tuberculous
PERITONITIS
ACTH therapy cause of? [Beck] 1518—ab
biliary, without perforation, [Verhage] 931—ab
postpartum, aureomycin for, [Guilbeau & others] *522
tuberculous, streptomycin for, [Wichelhausen] 1363—ab
PERLECHE
splitting of lip, 859
PERMANENT WAVE: See Hair
PERNICIOUS ANEMIA: See Anemia, Pernicious
PERSONALITY: See also Behavior; Emotions; Psychosomatic Medicine
Rorschach pattern in duodenal ulcer, [Kaldegg] 929—ab
stuttering-problem today, [Karlin] *732
PERSPIRATION: See Sweat
PERTUSSIS: See Whooping Cough
PESTICIDES
hazards from aerial spraying and dusting, 1158—E
PETHIDINE: See Meperidine
PETIT MAL: See Epilepsy
PETRAGNANI'S Anatuberculin: See Tuberculin
PETROLEUM PRODUCTS: See Butane; Gasoline; Kerosene
PEYRONIE'S Disease: See Penis
PHACOMATOSIS, 129
PHANTOM LIMB: See Amputation
PHARMACEUTICALS: See also Drugs
firms free drug samples, [Carson] 198—C; [Howe] 1114—C; [Frack] 1360—C
PHARMACISTS
physicians relation to, 1404—ab
PHARMACOPEIA
U.S. Pharmacopeial Convention, 119—E; 374—E
WHO Committee on Unification of Pharmacopoeias, 665
PHARMACY
A.M.A. Council on Pharmacy and Chemistry: See American Medical Association
PHARYNX: See Nasopharynx
PHENOBARBITAL
toxicity: attempted suicide; metrazol and supportive therapy, [Jones & others] *884
toxicity: exfoliative dermatitis and hepatitis, [Welton] *232
treatment plus hydantoin in epilepsy, [Pence] 1210—ab
PHENOL
shock during antirabic treatment, prevention, [Marneffe] 400—ab
treatment, infiltrate gums for trigeminal neuralgia, [Solé Sagarra] 850—ab
PHENOSULFAZOLE (darvisul)
treatment of acute poliomyelitis, [Fox & Hornberger] *535
PHENOLSULFONPHTHALEIN
test for tubal patency, [Speck] *357
PHENYTOIN Sodium: See Diphenylhydantoin Sodium
PHEOCHROMOCYTOMA
diagnosis by benzodioxan, [Goldenberg & Aranow] *1139
hypertension with, and piperidylmethylbenzodioxane, [Calkins] 596—ab
hypertension with, 183—E; (changes in retinas: "cotton wool exudate") [Hall] 1018—C
hypertension with; treatment, 216
PHILIPPINE health workers (24) in training, 1265
physicians in U.S., 1503
PHLEBITIS: See also Thrombophlebitis
postphlebitis syndrome, 182—E; [Ochsner] 847—ab
treatment, ambulatory, [Sigg] 688—ab
PHLEBORETINOPATHIA tarda in juvenile diabetes, [Jensen] 1216—ab
PHLEBOTHROMBOSIS: See Thrombosis, venous
PHOSPHATE
insecticides, hazards from spraying and dusting from planes, 1158—E
toxoid to prevent diphtheria, [Noordam] 505—ab
PHOSPHORUS
radioactive, treatment of polycythemia, 512
PHOTOGRAPHY: See also Microfilms; Moving Pictures
Biological Photographic Association convention, 1268
retouching materials, exposure to, 149
PHOTOSENSITIZATION: See Light
PHYSICAL DEFECTS: See Crippled; Handicapped; Rehabilitation
PHYSICAL EXAMINATION: See also Medicolegal Astracts at end of letter M
Second National Boy Scout Jamboree, 657—E
PHYSICAL EXERCISE: See Athletics; Exercise
PHYSICAL MEDICINE: See also Physical Therapy

PHYSICAL MEDICINE—Continued
American Congress of, 1354
A.M.A. Council on: See American Medical Association
Chicago Society of, to be organized, 189
Institute of, N.Y.C., 381
recognition as practice of medicine, A.M.A. resolution on, 1080; 1089
PHYSICAL REHABILITATION: See Rehabilitation
PHYSICAL THERAPY: See also Baths; Diathermy; Radium; Roentgen Therapy; Ultraviolet Rays; under names of specific diseases
course at U. of Texas, 1438
Poliomyelitis Recruitment Service of American Physical Therapy Association, 565
School of, at U. of Pennsylvania, 1006
schools of, *113; *114; 118—E
PHYSICALLY HANDICAPPED: See Handicapped
PHYSICIANS: See also Economics, Medical; Medical Jurisprudence; Medical Service; Medicine, profession of; Surgeons
Alien: See Physicians, foreign
American, visit British Atomic Research Center, 1435
applicants examined in basic sciences, 1949, *470; (1927-1949) *471
arbitration, 7—ab
as citizens, 1404—ab
Austrian Congress of, Sept. 7-9, 1354
avocations, American Physicians Art Association, 1190
avocations, International Physicians Art Exhibit (1st), Paris, 1193
avocations, professor of business administration, Massachusetts, 190
Awards to: See Prizes
British, classification of under National Health Service, [Martin & others] *1429
compulsory induction, 1347
continuation courses for, *572
Courses for: See Education, Medical, graduate
Credentials: See Licensure
Deaths: See Deaths at end of letter D
Displaced: See Physicians, foreign
Directory of: See Directory
Distinguished Service Medal: See Prizes
Drafting: See Medical Preparedness
Education of: See Education, Medical
Ethics: See Ethics, Medical
Fees: See Fees
Fellowship in the A.M.A.: See American Medical Association
Fellowships for: See Fellowships
for Armed Forces: See Armed Forces; Medical Preparedness
Foreign: See also other subheads as Physicians, British
foreign, A.M.A. Committee on Displaced Physicians, 980; 1088
foreign, exchange between Great Britain and United States, 1184
foreign, Austrian doctors in Sweden, 488; 1444
foreign, German scientists in training in U.S., 822
foreign, licensure of, *463; *464; *466; 475—E
foreign, number examined, statistics, 1930-1949, *469
foreign, resettlement of displaced physician in U.S., [Burgess] *413
free choice of, for federal employees, A.M.A. resolution on, 983; 1088
Graduate Work: See Education, Medical
imperturbability, 224—ab
Impostors Preying on: See Impostors
in Service: See Armed Forces; Army, U.S.; Medical Preparedness; Navy, U.S.
Income: See Income
Income Tax: See Tax
Industrial: See Industrial Health
Lectures Honoring: See Lectures
Licensing: See Licensure
Medals for: See Prizes; World War II, Heroes
Medical Examiners: See Aviation, U.S. Air Force
Medical Responsibility: See Medical Jurisprudence; Medicolegal Abstracts at end of letter M
medical civil defense system prepared by, Wis., 1438
Memorial: See also Fellowships; Lectures; Prizes
memorial: Volini antibiotic laboratories of Hektoen Institute, 1351
memorial, Dr. Whitman statue in capitol, Washington, 190
memorial, Ephraim McDowell Home opened by state society, Kentucky, 1005
memorial, Fred Moore School, Iowa, 1004
memorial: newspaper edition to be dedicated to county doctors, Illinois, 189
Negro, fellowships for, 1189
patient relationship, [Crede & others] *617
Payment of: See Fees; Income
Philippine, in U. S., 1503
placement service, 989
Portraits: See Portraits (cross reference)
positions open, Civil Service, Illinois, 189
positions open in foreign lands, 822
PHYSICIANS—Continued
Practicing: See also Medicine, practice; Physicians, supply
practicing, general practitioner no longer has access to hospital under British Health Service, [Diehl & others] *1498
practicing, New England Association of General Practitioners organized, 1353
practicing, under Health Insurance Plan of Greater New York, [Baehr] *637; 638—E; [Kleefield] 1445—C
Prescriptions: See Prescriptions
Privileged Communications: See Privileged Communications
Prizes for: See Prizes
public spending for, under National Health Service, England, 310; [Martin & others] *1432
Refugee: See Physicians, foreign
Registration: See Harrison Narcotic Act; Licensure; Medical Preparedness
Residencies; Resident: See Residencies and Residents
rural, in general practice, North Carolina, [London & Davison] *1233
Service by: See also Medical Service; Medical Service Plans
service by, A.M.A. resolution on exploitation, 1077; 1089; 1095
skin lesions in, from handling streptomycin, [Schäfer] 504—ab
Specialization: See Specialists; Specialties
supply, alternating plethora and scarcity of doctors, Sweden, 758; 1444
supply, A.M.A. resolution on specialty boards requiring 2 years in general practice, 1083; 1092
supply, American Medical Directory: 1950, 243—E
supply, Kansas retaining student physicians, 1504
supply, licentiates representing additions to profession, *451; *458; *459
supply, number under National Health Service Act, England, [Martin & others] *1429
supply, Paris, 568
supply, Rural Kentucky Medical Scholarship Fund, 1105
supply, situation in Israel, 1358
supply, unauthorized census procedures, 560
Swindling: See Impostors
Team of: See Medical Mission
Training: See Education, Medical
under Selective Service, 1185
veteran, Brasil (Vital), death at 85, 1016
veteran, Hardt (Albert F.) honored, 1189
veteran, Housholder (Harold A.), day to honor, 1436
veteran, Johnson (Lester H), 45 years in practice, Illinois, 904
veteran, Potteiger (George F.) honored on 60 years in practice, 906
women, in Armed Forces, 1263; 1418
women, Medical Women's International Association, 1353
women, U. S. Navy orders 17 to active duty, 750; (first one assigned aboard ship: Dr. Walters) 1502
women, volunteer for active duty in Army, 1490
PHYSICS
research in, contracts awarded by U.S. Atomic Energy Commission, 303
PHYSIQUE: See Constitution
PICTURES: See Art; Moving Pictures; Photography; Portraits (cross reference); Television
PIGMENTATION: See Color; Dyes; Retinitis pigmentosa; Stain
Loss of: See Vitiligo
PILES: See Hemorrhoids
PILLOW SPLINT
Freika's for congenital dislocation of hip, [Hart] *1301
PIMPLES: See Acne
PINEAPPLE pudding, Clapp's, 1486
PINK Disease: See Erythredema
Eye: See Keratoconjunctivitis, epidemic
PINWORM Infestation: See Oxyuriasis
PIPERAZINE, 1-diethylcarbamyl-4-methyl, hydrochloride: See Hetrazan
PIPERIDYLMETHYL-BENZODIOXANE
hypertension, and pheochromeocytoma, [Calkins] 596—ab
PITUITARY
Adrenocorticotropic Hormone: See ACTH
epinephrine effect on pituitary-adrenocortical system, [Recant] 1025—ab
implantation for rheumatic conditions, [Fellinger] 688—ab
implantation in rheumatoid arthritis, 759; [Edström] 1033—ab
tumors, chromophobe adenomas, [Anotni] 603—ab
what part used in manufacture of ACTH, 1380
PLACEBOS
antihistaminic drugs for colds, [Hoagland & others] *157
antispasmodic drugs, [Chapman & others] *627
pharmacology, [Wolf] 596—ab
PLACEMENT: See Physicians
PLACENTA: See also Amniotic Fluid
congenital pulmonary aspiration tuberculosis, [Hertzog] 134—ab
previa, management, [Ward] 1028—ab
tissue, subconjunctival implants, for retinitis pigmentosa, [Saltzman] 839—ab
transfer of aureomycin during labor, studies on, [Guilbeau & others] *525
transmission of malignant melanoma possible? [Dargeon] 1118—ab
PLAGUE
pneumonic, streptomycin and sulfadiazine for, [Feng] 1213—ab
survey in Venezuela by Pan American Sanitary Bureau, 1186
PLANES: See Aviation
PLANNED Parenthood: See Contraception
PLASMA: See subheads under Blood; Blood Transfusion; Serum
PLASMA HYDROLYSATE
N.N.R., (description) 1157; (Baxter) 1157
PLASTIC Surgery: See Surgery
PLEURISY
incidence, Norway, 195
recurring attacks, 860
PLEXUS: See Preaortic Plexus
PNEUMATIC HAMMERS
effect on fingers, 514
PNEUMOCOCCUS
meningitis due to simultaneous double infections in children, [Vaden & others] *1402
PNEUMOCONIOSIS: See Pneumonoconiosis
PNEUMOENCEPHALOGRAPHY: See Brain roentgen study
PNEUMONECTOMY: See Lungs, surgery
PNEUMONIA
atypical, primary, and Queensland fever, [Rilliet] 210—ab
atypical, primary, aureomycin in, [Collins] 592—ab; [Greiland] 603—ab; [Blodgett & others] *878
atypical, primary, laboratory tests in, [Milzer] *219
atypical primary, terramycin for, [Melcher & others] *1303
in children, single injection of repository penicillin, [Crigler & others] *532
mortality decreasing due to chemotherapy and antibiotics, Sweden, 488
pneumonitis, inclusion bodies disease, 745—E
treatment, aureomycin, [Dowling] 681—ab
treatment, penicillin, [Jahn] 322—ab; [Crigler & others] *532
treatment, sulfathiazole and penicillin, in children, [Buch] 505—ab
treatment, sulfathiazole, massive dose, in children, [Friderichsen] 505—ab
treatment, terramycin, [Melcher & others] *1303
treatment, terramycin for lobar type, [King & others] *1
vaccine prevent pneumonia? 1298
Virus: See Pneumonia, atypical
PNEUMONIC PLAGUE: See Plague
PNEUMONITIS: See Pneumonia
PNEUMONOCONIOSIS
anthrasilicosis, intermittent positive pressure breathing in, [Motley] 1025—ab
conference on silicosis, Italy, 568
in alabaster workers in Volterra, [Manfredi] 851—ab
occupational asbestosis, Belgium, 489
porcelain dust, cancer of bladder with metastasis in lungs, 1297
PNEUMOPERITONEUM, spontaneous, [De Luca] 774—ab
PNEUMOTACHOGRAMS
electrophrenic respirator in acute bulbar poliomyelitis, [Sarnoff & others] *1383
PNEUMOTHORAX
spontaneous, [Crenshaw] 1205—ab
spontaneous chronic, surgical management, [Brewer] 770—ab
spontaneous, repeated, 860
PNEUMOTHORAX, ARTIFICIAL
late results from Glittre Sanatorium, [Vaksvik] 932—ab
POISON Ivy; Poison Oak: See Rhus
POISONING: See also under names of specific substances as Carbon Tetrachloride
attempted suicides by, Oslo, 1273
Industrial: See Industrial Dermatoses; Industrial Diseases
POLIOMYELITIS
bulbar, acute, electrophrenic respirator in, [Sarnoff & others] *1383
bulbar, respiratory paralysis in, [Masland] 396—ab
diagnosis, laboratory tests, [Milzer] *219
diagnosis: radicular signs, [Neumann] 1525—ab
epidemic, [Radlinger] 144—ab
epidemic in Israel, 1359
in Cornwall in 1949, [Hargreaves] 1371—ab
in Iceland, [Sigurjonsson] 494—ab
in New York City, 1949, [Grenberg] 1368—ab
in summer camp carried over from one season to another? 1534
in Turkey, 1511
incidence, U.S., 754; 825; 908; 1008; 1167; 1190; 1268; 1354; 1439; 1507
infectious or metabolic? [McCormick] 840—ab

POLIOMYELITIS—Continued
muscle spasm in, [Caughey] 1370—ab
National Foundation for Infantile Paralysis, (grants for home care) 825; (research grants) 1008
nonparalytic, Coxsackie disease, 972—E; 1004
planning committee, Minnesota, 305
procedures, conference to plan, Ky., 1266
prognosis, [Lenhard] 500—ab
Recruitment Service of American Physical Therapy Association, 565
respiration, effect of muscle spasm, [Pohl] 137—ab
spasm in skeletal muscle, [Harell & others] *640
swimming pools and former poliomyelitis patients, any danger? 779
treatment, aureomycin, [Appelbaum & Saigh] *538
treatment, cortin, [Binet] 851—ab
treatment, curare, [Bower] 1020—ab
treatment, discard use of hot packs in, (Kenny's method), use priscoline instead, (reply), [Sands] 696
treatment, home care for patients, (National Foundation grant for) 825; (Illinois) 1008
treatment, phenosulfazole (Darvisul), [Fox & Hornberger] *535
POLLINOSIS: See Hay Fever
POLYAMINE-METHYLENE RESIN
N.N.R., (description) 1068; (National Drug) 1068
POLYARTHRITIS: See Arthritis
POLYCYTHEMIA
after penicillin therapy, no published record of, 512
treatment, 512
POLYHYDRAMNIOS
trauma not cause, 942
POLYMYXIN B
treatment of Shigella enteritis vs. chloramphenicol, [Ross & others] *1459
POLYNEURITIS: See Neuritis
POLYPS
familial polyposis, 859
POOR: See Medically Indigent
"POP": See Beverages, carbonated
POPULATION
Statistics on: See Vital Statistics
PORADENITIS: See Lymphogranuloma, Venereal
PORCELAIN
dust: cancer of bladder with metastasis in lungs, 1297
PORPHYRIA
nervous, [Brage] 688—ab
PORPHYRINS
in occupational diseases, [Maloof] 838—ab
test for lead absorption in industrial workers, 940
PORTAL VEIN
shunt operation for esophagus varices, [Linton] 135—ab
shunt operation for portal hypertension, [Wilson] 849—ab
PORTRAITS: See A.M.A. Board of Trustees, Sections; under names of individuals, Borzell; Cline; Graham; Henderson; Kerr
POSITION in Space: See Posture
POSITIONS Open: See Physicians, positions open
POSITIVE PRESSURE: See Pressure
POSTAL RATE increases, May 9 scheduled for hearings of, 121
POSTGRADUATE: See Graduates
Work: See Education, Medical, graduate
POSTMORTEM Cesarean Section: See Cesarean Section
POSTNATAL: See Infants, Newborn
POSTOPERATIVE: See Surgery
POSTPARTUM: See Labor; Puerperium
POSTURE
angina pectoris during decubitus (patient in recumbent position), [Soloff] *225; [Brunn] 1513—C
Early Rising vs. prolonged Bed Rest: See Convalescence
fatigue from standing or walking on hard floors, 693
POSTWAR: See World War II
POTASSIUM
bromate poisoning with cold wave neutralizer, [Robertson] 682—ab
in Blood: See Blood
POTATOES
sweet, Beech-Nut Strained, 1415
POVERTY: See Medically Indigent
POWDER inhaler: Aerohalor, 1487
POWER, Atomic: See Radioactive Isotopes
POX: See Rickettsialpox
PRACTICAL Nursing: See Nurses and Nursing
PRACTITIONER: See Physicians
Drugless: See Cults
Illegal: See Quackery
PREACHERS: See Clergymen
PREAORTIC PLEXUS
resection and coronary vasodynamics, [Arnulf] 1526—ab
resection in angina pectoris, [Arnulf] 1454—ab
PREFRONTAL Lobotomy: See Brain Surgery
PREGNANCY: See also Fertility; Fetus; Impregnation; Labor; Maternity; Obstetrics; Placenta; Puerperal Infection; Puerperium
PREGNANCY—Continued
advisable in recurrent anencephaly? [Feuerlicht] *23
advisable where first child had amaurotic idiocy, 214
age of mother, empiric figures in mongolism, [Böök & Reed] *730
calcium medication during, 408
chest roentgenograms during, 611
complications, Addison's Disease, [Brent] 1364—ab
complications, diabetes mellitus, [Andersson] 1291—ab; 1346—E
complications: epilepsy, 215
complications: measles in mother cause of heart defect in child? 1126
complications: melanoma, placental transmission to child, [Dargeon] 1118—ab
complications: nocturnal cramps, 938
complications: painless vaginal bleeding during, Rh factor cause? 1381
complications: pneumonectomy, cardiovascular and respiratory studies, [Long & others] *358
complications, purpura rheumatica, 406
complications: rheumatic heart disease, repeated pregnancy in, [Correll] 917—ab
complications: syphilis, penicillin for, [Wammock] 1115—ab
complications: tetanus antitoxin given to mother causes fetal death, 405
complications: tuberculosis; aspiration tuberculosis in child, [Hertzog] 134—ab
complications: virus neuronitis, 942
diagnosis, rana and bufo test, [Hinglais] 1121—ab
diagnosis: roentgen demonstration of fetal skeleton, 150
dicumarol used in, [Adamson] 918—ab
diet in, women eat clay and laundry starch, [Ferguson] 1208—ab
endometriosis, [Ware] 1115—ab
Interruption of: See Abortion
Multiple: See Twins
Protection from: See Contraception
radium irradiation of pelvis followed by, [Giles] 686—ab
Syphilis in: See Pregnancy, complications
Toxemia of: See also Eclampsia
toxemia of, 940
toxemia of, exchange transfusions and toxicosis, France, 194
toxemia of, hypertension in, 1489—E
toxemia of, renal clearances of urea and uric acid, [Chesley] 1516—ab
vomiting in, 938
PREGNENETRILONE ACETATE
treatment of rheumatoid arthritis, [Polley & Mason] *1476
PREGNENOLONE
treatment of rheumatoid arthritis, [Guest & others] *338; [Davison] 767—ab; [Polley & Mason] *1476; *1477
PREMATURE Infants: See Infants, premature
Labor: See Labor
PREMEDICAL Work: See Education, Medical
PRENATAL: See Fetus; Pregnancy
PREOPERATIVE: See Surgery
PREPAREDNESS, Medical: See Medical Preparedness
PREPAYMENT PLANS: See Hospitals, expense insurance; Medical Service Plans
PREPUCE: See Circumcision
PRESCRIPTIONS
code, new, 902
refilled without a physician's authorization, 560
PRESENTATION of Fetus: See Labor
PRESIDON
toxicity, fatal agranulocytosis, [Covner] 397—ab
PRESS: See Newspapers
PRESSURE
Positive Pressure Breathing: See Respiration
positive pressure vs. gravity method for transfusion, [Murphy] 673—C
PRIAPISM
transurethral resection followed by, 1222
PRINTING
radioactive static eliminators used in printing plant, [Berman] 1451—ab
PRISCOL
effect on peripheral circulation, [Wakim] 597—ab
PRISCOLINE: See Benzazoline
PRISONERS of War: See World War II
PRIVILEGED COMMUNICATIONS: See also Medicolegal Abstracts at end of letter M
professional secrecy, Denmark, 130
PRIZES: See also Fellowships; Lectures; Scholarships
Abel, 484
Alien instructorship awards, 752
Alvarenga, 1506
American Association of University Women, achievement award, 1106
A.M.A. Committee on Awards, report, 1168
A.M.A. Distinguished Service Award, (nominations open) 119—E; (to Dr. Graham) 901—E; (balloting) 977
American Society of Plastic and Reconstructive Surgery Foundation Award, 564
American Urological Association award, 1189
Bierring (Walter) Award established, 905
PRIZES—Continued
Borden Undergraduate Award, 1004
Chicago Medical School Meritorious Research Awards, 1436
Geiger Medal of Public Health, 905
Gold Headed Cane, (Calif.) 823; (Colo.) 1105
Gold Heart Award to founders of American Heart Association, 1190
History of Medicine Society awards to students, Tulane, 663
Horsley Research Award, 906
Hospital Council's Community Service Awards, Missouri, 824
Jacoby Award, 1004
Keyes Memorial Medal, 904
Knudsen Award, 126
Lasker (Albert and Mary) Awards (1st) in journalism, 383
Life Insurance Medical Research Fund Awards for research on heart disease, 665
Miller (Leo F.) award, 1436
Mississippi Valley Essay Contest, 907
Moses, 824
Nobel, 50th anniversary of founding of, 1267
O'Malley Award, 754
Ortho Award, 907
Retzius (Anders) Medal, 1112
Ricketts Medal, 307
Rochester Academy of Medicine Award, 1005
Rush Award, 1006
Seaman (Louis Livingston), 1502
Shattuck Award, 190
Sigma Delta Epsilon Graduate Women's Scientific Fraternity Research Award, 1008
Snow (William Freeman), 306
Sugar Research Foundation, Inc., Award, 1350
Trudeau Medal, 481; 825
PROCAINE HYDROCHLORIDE
intravenously, [Grunert] 1526—ab
intravenously for unusual reaction to penicillin, [Felder & Felder] *361
Penicillin G: See Penicillin
presacral infiltration for sciatica, [Stender] 1454—ab
toxoid given with, 696
PROCTITIS: See Rectum inflammation
PROFESSION: See Medicine, profession of; Nurses and Nursing
PROGESTERONE
treatment of rheumatoid arthritis, [Kersley] 1372—ab; [Kyle] 1518—ab
treatment, subcutaneous injections in cancer of breast, 1534
PROLICULIN
aqueous suspension, N.N.R., (Merrell) 970
PROMACETIN
treatment of leprosy, [Johansen] 846—ab
PROMIZOLE
treatment of tuberculosis in children, [Lincoln] 845—ab
treatment plus streptomycin for miliary and meningeal tuberculosis in children, [Lincoln] 678—ab
PROPHENPYRIDAMINE (trimeton)
toxic psychosis from, [Yapalater & Rockwell] *438; [Waldman & Pelner] *1334
PROPIONATE
sodium, use in external infections of eyes, [Theodore] *226
PROPYLENE
glycol, adrenal cortex extract in, for rheumatoid arthritis, [Polley & Mason] *1479
PROPYLTHIOURACIL
loss of hair after, 860
1-methyl-2-mercaptoimidazole treatment of hyperthyroidism, [Reveno & Rosenbaum] *1407
toxicity: acute thrombopenic purpura, [Fewell & others] *891
treatment of hyperthyroidism, [Mazzei] 208—ab
PROSTATE
calculi, (multiple) 1458
cancer and chest pain, 695
cancer, cytologic study, [Boyer] 844—ab
cancer, diethylstilbestrol and orchiectomy for, [Nesbit & Baum] *1317
cancer, latent, [Andrews] 602—ab
cancer, with bone metastases, [Oelbaum] 1524—ab
hypertrophy, 1297
trichomonas infestation, 150
PROSTATECTOMY
Millin's, 1110
priapism after transurethral resection, 1222
transurethral, obstruction after, 1533
urinary incontinence after transurethral resection, 1221
PROSTHESIS: See Limbs, Artificial; Teeth, artificial
PROSTIGMINE: See Neostigmine
PROTAMINE
sulfate and thrombin, addition to M.R. plasma, [Cutler & others] *1058
PROTEIN: See also Amino Acids; Casein
deficiencies, blood and plasma to correct in surgical patient, [Allen] 593—ab
diet (free) effect on essential hypertension, [Kohari-Kucharik] 394—ab
Digest: See Amigen
hydrolysate, N.N.R., (National Drug) 241; (Winthrop-Stearns) 897

PROTEIN—Continued
hydrolysate, parenteral and oral, [Alper] 598—ab
hydrolysate, plasma hydrolysate, N.N.R., (description) 1157; (Baxter) 1157
hydrolysate, supplement in feeding of premature infants, [Henckel] 604—ab
in Blood: See Blood
in Spinal Fluid: See Cerebrospinal Fluid
in Urine: See Albuminuria
of animal origin, [Howe] *1337
of tissue and circulating protein, [Harroun] 769—ab
origin of the word "protein"; chemical structure; peptide linkage, 1071—E
Sensitivity to: Allergy
soils and health, [Maynard] *807
stores in man, 184—E
PROTEINURIA: See Albuminuria
PROTEUS
mural bacterial endocarditis produced by, [Taniguchi & Murphy] *428
PROTHROMBIN: See Blood prothrombin
PRURITUS
ani, paranitrophenol and sodium iodate for, [Reinap] 1452—ab
in Hodgkin's Disease, 644—ab
"nervous", psychologic factors, [Brandt] 843—ab
rash and diabetes, 781
PSEUDOECTOTHRIX, possible, 609
PSEUDOHYPOPARATHYROIDISM
Seabright Bantam syndrome, [Lowe] 396—ab
PSEUDOPERICARDITIS
error in cardiac auscultation, [Schnur] *969
PSITTACOSIS
laboratory tests in, [Milzer] *219
PSORIASIS
treatment, ACTH, cortisone and undecylenic acid, 1222
treatment, undecylenic acid, [Guy] 761—C
PSYCHIATRY: See also Hospitals, psychiatric; Mental Deficiency; Mental Disorders; Mental Hygiene; Neuropsychiatry; Psycho—
attitude toward dianetics, 1220
clinic for juvenile patients, Philadelphia, 484
department with 50 beds for children, Norway, 131
Directory of Psychiatric Facilities in Illinois, 124
International Congress of, Paris, 1268
scope and relationships of, in medicine, [Gerty] *613
training for nurses, Ky., 1352
whither psychiatry? 807—ab
PSYCHOLOGY: See also Psychosomatic Medicine
consultants of U.S. Army, 481
factors in skin disease, [Brandt] 843—ab
of senility, [Granick] 922—ab
PSYCHOMOTOR epilepsy, surgical treatment, [Morris] 924—ab
PSYCHONEUROSIS: See also Neurosis
danger from swallowing nail polish remover, 941
surgical procedures in women with, [Ulett & Gildea] *960
PSYCHOPATHIC Hospitals: See Hospitals psychiatric
PSYCHOSIS: See also Mental Disorders
toxic, from prophenpyridamine (trimeton), [Yapalater & Rockwell] *428; [Waldman & Peiner] *1334
PSYCHOSOMATIC MEDICINE
aspects of frigidity, [Kroger & Freed] *526
disorders, treatment by general physician, [Crede & others] *617; [Markowitz; Exner] 1514—C
PSYCHOSURGERY: See Brain surgery
PTYALISM: See Saliva
PUBERTY, Precocious: See Adolescence
PUBLIC HEALTH: See Health
Missions: See Medical Missions
PUBLIC RELATIONS
Conference, November 26-27, 1950, 749
PUBLIC SCHOOLS: See Schools
PUDDING, Clapp's (chocolate & pineapple), 1486
PUERPERAL INFECTION
death rate declining, Denmark, 913
treatment, aureomycin, [Guilbeau & others] *520
PUERPERIUM
aureomycin in, [Guilbeau & others] *529
mastitis, penicillin treatment, [Pütz] 932—ab
PULMONARY: See Lungs
Embolism: See Embolism
Tuberculosis: See Tuberculosis of Lung
PULMONARY VALVE
stenosis, cardiac catheterization in diagnosis, [Mannheimer] 320—ab
PUNCH BIOPSY: See Liver
PURPLE, visual, synthesis of, 559—E
PURPURA
rheumatica, 406
thrombopenic, acute, after propylthiouracil, [Fewell & others] *891
thrombopenic, after quinidine, [Norcross] 398—ab
thrombopenic, eosinophil index in, [Schwartz] 1447—ab
thrombopenic idiopathic, [Robson] 142—ab
thrombopenic, splenectomy for, 216
PYELOGRAPHY
injury in region of kidney, 1457
sarcoma of kidney 16 years after, [Zollinger] 604—ab
PYELONEPHRITIS
acute, complicating labor, aureomycin for, [Guilbeau & others] *523
treatment, terramycin, [King & others] *1
PYLOROPLASTY: See Pylorus surgery
PYLORUS
surgery, pyloroplasty for peptic ulcer, [Collins] 140—ab
surgery, vagotomy and partial pylorectomy in peptic ulcer, [Beattie] 1212—ab
valve, stenosis, (hypertrophic) in infants, [Hefke] 319—ab
PYORRHEA ALVEOLARIS, peridontoclasia, 859
PYRANISAMINE
maleate, N.N.R., (description) 1156; (Merck), 1156
PYREXIA: See Fever
PYRIBENZAMINE: See Tripelennamine

Q

Q FEVER
atypical pneumonia relation to, [Rilliet] 210—ab
diagnosis, laboratory, [Milzer] *219
in northern Württemberg, [Freygang] 400—ab
in Switzerland, 1013
study station, California, 823
transmission from one man to others, [Deutsch & Peterson] *348
treatment, aureomycin, [Hauss] 1214—ab
QUACKERY: See also Nostrums; under names of specific individuals as Erickson
debate on in Norwegian Parliament, 1194
QUARANTINE
inspection requirements for ships and aircraft, 1265
QUERCETIN SULFONATE
intestinal absorption in rat (Council report), [Clark & MacKay] *1413
QUESTIONNAIRE
Erie County Society postcard survey on antihistamines for colds, [Arbesman] 198—C
on blood banks by A.M.A., 1160—E
QUINACRINE
treatment of paroxysmal arrhythmias, [Vega Diaz] 1453—ab
treatment of recurrent malaria, 1296
QUINIDINE
in Blood: See Blood
toxicity: thrombopenic purpura, [Norcross] 398—ab
treatment, intravenous use, [Blinder] 682—ab
QUININE
treatment in multiple sclerosis, [Schumacher] *1247

R

RABBIT Fever: See Tularemia
Serum: See Influenza; Meningitis, influenzal
RABIES
Caribbean conference, 1507
control, (Kanawha county, W. Va.) 191; (Colorado) 752
laboratory tests in, [Milzer] *219
treatment (antirabic), preventing phenolic shock, [Marneffe] 400—ab
virus, chick-embryo-adapted, [Koprowski] 1026—ab
RACES: See Indians, American; Jews; Negroes
RADIATION: See also Atomic Energy; Light; Radiology; Radium; Roentgen Rays; Ultraviolet Rays
bacteremia, 1072—E
courses for health officers, 122
excessive, during angiocardiography, [Hills] 773—ab
hazard to physician in irradiating nasopharynx, [Rubin] 1203—ab
hazards to radiotherapeutic staff, [Nuttall] 848—ab
injuries of skin, [Teloh] 928—ab
scoliosis induced by, [Arkin] 1519—ab
RADICULITIS: See Sciatica
RADIO: See also Television
A.M.A. President's inauguration broadcast, 746—E
antivivisectionists buy radio time on buses, Washington, D. C., 1004
electrical transcriptions: "Tea for Three", 660—OS
Frequency Apparatus: See Diathermy
Illinois State Medical Society transcribed series, ("You and Your Baby") 1188; ("Here is Your Doctor") 1351
medical-press conference, 1436
New York Academy, Post Graduate Medical Education Radio Program, 1189
RADIOACTIVE
gallium, research on, by U.S. Navy, 122
Institute of Nuclear Studies, Tennessee, 564
Iodine: See Iodine
Isotopes: See also Atomic Energy
Isotope Laboratory of National Institutes of Health opened, 822
isotopes, accidental skin ulcers from, [Patton & Millar] *554
isotopes, course in instrumentation, Tenn., 1267
RADIOACTIVE—Continued
isotopes solution for intracavitary irradiation of bladder, [Wallace] 601—ab
Phosphorus: See Phosphorus
static eliminators, use in printing plant, [Berman] 1451—ab
U.S. Army Medical Center, course on nuclear energy, 481
RADIOEAR All-Magnetic Model 55 Hearing Aid, 555
RADIOLOGY: See also Radiation
British radiographers conference, 383
Colombian Conference on Radiology, (1st), 672
USPHS courses in radiologic health training, 1503
RADIUM
beam therapy unit, Roosevelt Hospital, N. Y. C., 1437
hazard to physician in treating nasopharynx, [Rubin] 1293—ab
Norwegian radium hospital, Norway, 757
"pencil" of Erickson and Nelson, 571—BI
treatment of cancer of uterine cervix; bladder necrosis after, 694
treatment of pelvis, pregnancy following, [Giles] 686—ab
RADIUS
fracture, Colles'; study of end results, [Cassebaum] *963
RASH: See Eruptions
RATS: See Typhus, murine
RAYNAUD'S DISEASE, 1296
RAYS: See Radiation
READER Fellowships: See Fellowships
REAL ESTATE
U.S. Government, surplus of, 478
REBATES, 151—ab; 1320—ab
RECKLINGHAUSEN'S Disease: See Neurofibromatosis
RECORDS
Conference on Records and Statistics, 903
Librarians: See Medical Record Librarians
RECREATION
agencies, directory of, Kentucky, 563
RECTUM: See also Anus
abscess, Salmonella oranienburg in, [Smiley & others] *430
cancer (recurrent) bladder and vagina resection for, [Boyd] 767—ab
inflammation, p-nitrosulfathiazole (nisulfazole), N.N.R., (description) 1155; (Breon) 1155
leukoplakia, 405
Suppositories: See Suppositories
surgery, resection in Hirschsprung's disease, [Smith] 1122—ab
Varix: See Hemorrhoids
RECUMBENCY: See Posture
RECURRENT FEVER: See Relapsing Fever
RED CELLS: See Erythrocytes
RED CROSS, AMERICAN
A.M.A. Committee on Blood Banks, report, 1072—E; 1077
blood collections, 1079; 1264
blood collection, request of Secretary of Defense, 1439
blood collection, standardized methods, 1417—E
REDUCING Treatment: See Obesity
REFLEXES
hyperactive, chorea or anxiety, 1380
REFRIGERATION
Anesthesia: See Anesthesia
of tetanus antitoxin, 215
REFRIGERATORS
ultraviolet lamps in, to lessen food contamination or infection, 782
REFUGEES: See Displaced Persons; Physicians, foreign
REGISTRA: See Residents and Residencies
REGISTRATION of Physicians: See Harrison Narcotic Act; Licensure; Medical Preparedness
REGISTRY: See Leprosy; Pathology
REHABILITATION
A.M.A. Council on Physical Medicine and Rehabilitation: See American Medical Association
Chicago Society of, to be organized, 189
courses in, Sussex, England, 383
definitions of word "rehabilitation" adopted by A.M.A. Council, 654
Journey Back (film review), 490
of handicapped persons, 659
REICHSTEIN'S COMPOUND S: See Desoxycortisone
RELAPSING FEVER
in Texas, [Eads] 593—ab
RELIGION: See Clergymen
REMUNERATION: See Fees; Income
RENAL: See Kidneys
REORGANIZATION PLAN No. 27: See United States Department of Health, Education, and Security
REPRODUCTION: See Coitus; Contraception; Fertility; Pregnancy
RESEARCH: See also Animal Experimentation; Science; under specific headings as Cancer
clinical and laboratory, ACTH as tool, [Spies] 321—ab
ethical code for scientists, 1262—E
Fellowship: See Fellowships
Foundation: See Foundations

RESEARCH—Continued
fund established by surgeons at U. of California Medical School, 380
grants by U.S.P.H.S., 187
laboratory of U.S. Army, select site for, 750
Maryland Society for Medical Research, 1504
medical, in Buffalo, animals for, New York, 905
Medical Research Council: See Medical Research Council
medical, ten high-paying posts created by U.S. Civil Service Commission, 120—OS
National Research Council: See National Research Council
National Society for Medical Research seeks funds, 907
Prizes for: See Prizes
Research and Development Board, (new chairman: William Webster) 188
RESECTOSCOPE
Stern-McCarthy's, use to remove thermometer from bladder, [Schloss & Solomkin] *804
RESIDENTS AND RESIDENCIES: See also Interns and Internships
approved by A.M.A., essentials, 995; 1092
in obstetrics and gynecology, A.M.A. resolution on, 1079; 1092
in surgery, establishment of single inspection service for, 1184
licensure requirements for, *453; *459
registra training in Great Britain, [Diehl] *1498
RESINS: See Nylon; Polyamine-Methylene-Resin
RESINAT
N.N.R., (description) 1068; (National Drug) 1068
RESISTAB
countercharges made in antihistamine case, 120-OS
RESORCINOL
hair discolored after taking, 779
RESORTS: See Health resorts
RESPIRATION: See also Vital Capacity
Artificial: See Respirator; Resuscitation
Disorders: See also Asphyxia
disorders, electrophrenic respirator in poliomyelitis, [Sarnoff & others] *1383
disorders in poliomyelitis, effect of muscle spasm, [Pohl] 137—ab
in pregnancy after pneumonectomy, [Long & others] *358
intermittent positive pressure breathing and gas exchange, [Motley] 1025—ab
RESPIRATOR
electrophrenic, in poliomyelitis, [Sarnoff & others] *1383
Fairchild-Huxley Chest Respirator, 1157
RESPIRATORY METABOLISM: See Metabolism, basal
RESPIRATORY SYSTEM: See also Bronchus; Lungs
cancer mortality, 907
cancer, Norway, 195
Disease: See Bronchiectasis; Lungs; Pneumonoconiosis
Infection: See also Colds; Influenza; Pneumonia; Tuberculosis of Lung
infections, aureomycin in, [Finland] 592—ab
REST, Bed: See Convalescence
RESTRAINT of Practice: See Medicolegal Abstracts at end of letter M
of Trade: See Medical Jurisprudence
RESUSCITATION: See also Respirator
after apparent death from spinal anesthesia, [Hyde & Moore] *805; (correction) 1268
RETICULOSIS
lipomelanic, [Agress & Fishman] *957
RETINA: See also Retinitis
"cotton wool exudate" in pheochromocytoma and hypertension, [Hall] 1018—C
disease, phleboretinopathia tarda in juvenile diabetes, [Jensen] 1216—ab
edema after anesthesia, [Givner] 768—ab
hyaluronic acid in subretinal fluid, [Godtfredsen] 207—ab
phacomatosis, Netherlands, 129
prevention of retinal venous occlusion, [Klein] 765—ab
RETINENE
synthesis of visual purple, 559—E
RETINITIS
pigmentosa, cod liver oil injections and subconjunctival implants of placenta tissue, [Saltzman] 830—ab
RETROLENTAL Fibroplasia: See Lens, Crystalline
RETZIUS Medal: See Prizes
REVISTA: See Journals
RH FACTOR: See also Erythroblastosis, Fetal
anamnestic reaction, [Schneider] 918—ab
cause of painless vaginal bleeding during pregnancy? 1381
negative blood, use for all Rh-negative recipients in transfusions, 1296
no relation to mental deficiency, [Gilmour] 1524—ab
RHEUMATIC FEVER
American Council on, 1507
Cardiac Complications: See Heart disease (rheumatic); Pericarditis, rheumatic
Colorado Rheumatic Fever Library, 1266
complications: glomerulonephritis, [Mayer] 1374—ab
RHEUMATIC FEVER—Continued
nutritional study of victims, Utah, 1438
treatment, 1382
treatment, ACTH, [Massell] 1521—ab
treatment, cortisone and ACTH, [McEwen] 1118—ab
RHEUMATISM: See also Arthritis
activity, Weltmann reaction and sedimentation rate to determine, [Nelson] 681—ab
Acute Articular: See Rheumatic Fever
Arthritis and Rheumatism Foundation, (fellowships for research in) 1007; (grants to hospitals, N.Y.C.) 1268
Desert: See Coccidiodomycosis
in childhood, Congress of Pediatrics discusses, Italy, 129
meningeal reaction in, [Nassl] 1033—ab
Painton fellowship in, Ohio, 564
prevention, treat preceding streptococcic infection with penicillin, [Denny & others] *151
treatment, salicylate, [Reid] 1032—ab
RHEUMATOID ARTHRITIS: See Arthritis, rheumatoid
RHINITIS, Vasomotor: See Hay Fever
RHINOPHARYNX: See Nasopharynx
RHUS
poison ivy dermatitis, 1380
poison oak-ivy extract, N.N.R., (Hollister-Stier) 813
RIBOFLAVIN Deficiency: See Pellagra
RIBS: See also Sternum
pain in arm from mechanisms in costoclavicular space, [Stammers] 1289—ab
puncture for obtaining bone marrow, [Moulton] 844—ab
RICE
artificially enriched, and beriberi mortality in Bataan, [Salcedo] 600—ab
RICKETS [Jeans] *177
diagnosis, (early clinical), [Hess] 209—ab
RICKETTS Medal: See Prizes
RICKETTSIA: See also Q Fever; Rocky Mountain Fever; Tsutsugamushi Disease; Typhus
culture in dead chick embryos, [Weiss] 1206—ab
laboratory diagnosis, [Milzer] *219
RICKETTSIALPOX
clinical signs, [Rose] 135—ab
RIDGING
of nails, 514; 1128
RINGS: See Gold rings
RINGWORM: See Dermatophytosis; Tinea
RISING, Early, after Operation: See Convalescence
ROAD Accidents: See Automobiles
ROCHESTER Academy of Medicine Award: See Prizes
ROCKY MOUNTAIN SPOTTED FEVER
fatality, Ill., 1188
RODENTS
tularemia in Belgium, 759
ROENTGEN RAYS: See also Medicolegal Abstracts at end of letter M
demonstration of fetal skeleton, 150
estimation of mineral content of bone, [Henny] 771—ab
examination of adrenal gland by filling stomach with air, [Kraus] 132—C
Irradiation: See Roentgen Therapy
roentgenology as practice of medicine, A.M.A. resolution on, 1080; 1089
technicians, schools for, *109; 118—E
ROENTGEN THERAPY
anuria in leukemia after, [Lear & Oppenheimer] *806
bladder necrosis after treating carcinoma of cervix, 694
epithelioma and papilloma arising from recently irradiated skin, [Walter] 685—ab
of hidradenitis suppurativa axillaris, [Schenck] 501—ab
prophylaxis, 817—E
ROENTGENOGRAPHY: See Roentgen Rays, examination; Pyelography
ROOMS: See Floors
RORSCHACH TEST
pattern in duodenal ulcer, [Kaldegg] 929—ab
ROSIN
allergy to, in violinist, 1222
ROUNDWORMS: See Ascariasis
ROYAL COLLEGE
of Surgeons, War Collection, 1158—E
RUBBER
gloves, allergy to, in surgeon, 1296
RUBELLA
preceding pregnancy, no relation to mongolism in child, 1534
RUBEOLA: See Measles
RUPTURE: See Hernia
RURAL COMMUNITIES: See also Agriculture
County Health Department: See Health
health, A.M.A. Committee on, employ field secretary, 749—OS
health conference, West Virginia, 126
health workshop, Pennsylvania, 824
physicians for, loan fund for students, Kan., 1352
physicians for, scholarships for students to increase supply, (Miss.) 753; (Ky.) 1105
physicians in general practice, North Carolina, [London & Davison] *1233
RURAL COMMUNITIES—Continued
population, nutrition survey: anemia and iron, [Youmans] 394—ab
RUSH Award: See Prizes
RUSSIA
state dictated medicine in, 561—OS
RUTIN
absorption and excretion, (Council report) [Clark & MacKay] *1411
prevent vascular injury from dicumarol, [Matis] 1291—ab

S

S Compound of Reichstein: See Desoxycorticosone
S-140: See Meperidine
SAFETY
first on fourth of July, 818—E
SAILORS: See Navy, United States
SALARIES: See Income
SALESMEN, Fraudulent: See Imposters
SALICYLANILIDE-N.F. (Ansadol)
N.N.R., (description) 1485; (Rorer), 1485
SALICYLATES: See also Acid, acetylsalicylic; Acid, p-aminosalicylic
treatment of rheumatic fever, [Reid] 1032—ab
SALIVA
ptyalism, 1297
SALIVARY GLAND
virus infection: generalized cytomegalic inclusion disease, [Wyatt] 843—ab
SALMONELLA
infections (inapparent) in hospitals, [Felsen & others] *1135
oranienburg in perirectal abscess, [Smiley & others] *430
SALPINOGRAPHY: See Oviducts, roentgen study
SALT: See also Sodium chloride
conservation, renal and adrenal mechanisms, 1059—ab
diet (free) and also use of salt in heart failure [de Vries] 1525—ab
diet (free) for heart disease, Denmark, 387
diet (low) followed by Addison's disease and miliary tuberculosis, [Friedenberg] 925—ab
diet (low) for hypertension, preliminary report, [Kert & others] *721
iodized, to prevent endemic goiter, [Wespi-Eggenberger] 1034—ab
SALUNDEK, N.N.R., (description) 1157; (Wallace & Tiernan) 1157
SALVARSAN: See Arsphenamine
SALYRGAN: See Mersalyl
SAMPLES
discarded drugs, [Carson] 198—C; [Howe] 1114—C; [Frack] 1360—C
SANATORIUM: See also Tuberculosis
Clifton Springs Sanitarium and Clinic, 100th year, 1267
SANBORN Viso-Cardiette, Model 51, 1487
SAN FRANCISCO
description of the city, 247
Session: See American Medical Association
SANITATION: See Hygiene; Sewage
SAN JOAQUIN Valley Fever: See Coccidioidomycosis
SARCOIDOSIS
of lung, 941
treatment, 408
SARCOMA: See also Myosarcoma; Osteosarcoma
Osteogenic, with long survival, [Coley] 1519—ab
SASLOW Scholarship: See Scholarships
SCALP, Ringworm of: See Tinea
SCANDINAVIA, Societas Medica Scandinavica, 488
SCHAUMANN-Besnier-Boeck Disease: See Sarcoidosis
SCHICK Test: See Diphtheria
SCHIZOPHRENIA: See Dementia Precox
SCHOLARSHIPS: See also Fellowships
Alpha Chi Omega, for cerebral palsy training, 565
Elks National Foundation, in cerebral palsy, 1353
Feinberg (Mary), at Chicago Medical School, 380
financial aids for British medical students, [Diehl & others] *1495
rural medical scholarship fund, (Miss.) 753; (Ky.) 1105
Saslow (Milton) at Chicago Medical School, 380
Woman's Auxiliary, to school of nursing, Delaware, 1004
SCHOOLS: See also Education; Students; University
buildings, carbonated beverage dispensing machines in, (Council report) 24
Children in: See Children
for Medical Record Librarians: See Medical Record Librarians
for Technicians: See Occupational Therapy; Physical Therapy; Roentgen Rays; Technologists
Health Conference, Montana, 305
lighting, basic requirements, [Tinker] (Council article) *362

SCHOOLS—Continued
of Basic Science: See Basic Science
of Nursing: See Nurses and Nursing
Premedical Work: See Education, Medical
tuberculous infection in elementary schools, [Jones Davies] 929—ab
SCHOOLS, MEDICAL: See also Education, Medical; Graduates; Students, Medical; University; under names of specific schools; Medicolegal Abstracts at end of letter M
academic year (hours, weeks or months) required by state boards, *453; *460
A.M.A. resolution on exploitation of services of physicians, 1077; 1089; 1095
approval of, *456
Armour Laboratories policy on distribution of ACTH, [Mote] 831—C
Canadian, graduates examined for licensure in U. S., 1949, *446
cancer teaching program, 1187
candidates licensed by reciprocity and endorsement according to, 1949, *454
financial support (federal) 819; 902; 1264
financial support in Great Britain, [Diehl] *1494
foreign, list of, *463; (additions to list), 1072—E; 1114
foreign, physicians examined for licensure according to, *466; *469
in Great Britain, described, [Diehl & others] *1494
Internships required by, *453; *459
licensure candidates examined by State Board according to, *442; *445; *446
National Board diplomats according to, *474
Premedical Work: See Education, Medical
survey, report on, West Virginia, 906
unapproved, graduates of, registered, 1944-1949, *460; *465
U. S. Navy, 1502
SCIATIC Paralysis: See Paralysis
SCIATICA
treatment, laminectomy (reply) [Ehni] 408
treatment, presacral procaine infiltration, [Stender] 1454—ab
SCIENCE: See also Research
Academy of, discusses treating brucellosis with various drugs, Italy, 1110
attaché of American Embassy, Dr. A. S. Osborne assigned to London, 481
Basic: See Basic Science
ethical code for scientists, 1262—E
Medical: See Medicine
National Academy of, honors leaders in medical sciences, 120—OS
National Science Foundation, 301
writers awards, 383
SCIENTIFIC TESTS: See Medicolegal Abstracts at end of letter M
SCLEROSIS: See also Arteriosclerosis; Liver cirrhosis; Nephrosclerosis; Otosclerosis
multiple, [Schumacher] *1059; *1146; *1241
multiple, brucellosis relation to [Spicknall & others] *1470; [Eisele & others] *1473
multiple, histamine for, [Jonez] 767—ab
multiple, meningioma simulating, [De Gispert] 688—ab
multiple, treatment, review of drugs used, [Schumacher] *1241
multiple, vitamin B_{12} for, 1272
Posterior Spinal: See Tabes Dorsalis
tuberous, phacomatosis, Netherlands, 129
SCOLIOSIS: See Spine curvature
SCOTOMA
from streptomycin therapy, [Thomas] 1203—ab
SCOUTS: See Boy Scouts
SCRATCH
from cats or thorns caused adenopathy, 1193
SCROTUM
moles on, 939
SCRUB TYPHUS: See Tsutsugamushi Disease
SEABRIGHT Bantam syndrome: See Pseudohypoparathyroidism
SEAMAN Prize: See Prizes
SEASICKNESS: See also Motion Sickness
treatment with dimenhydrinate (Dramamine), N.N.R., (description) 815; (Searle) 815
SEATWORMS: See Oxyuriasis
SEBACEOUS CYST: See Steatoma
SECONAL
poisoning: attempted suicide, Metrazol and supportive therapy, [Jones & others] *884
SECRETARIES: See Societies, Medical
SECURITY: See Federal Security Agency; National Security; Social Security
United States Department of Health, Education and Security: See United States
SEDATIVES: See under specific sedatives as Presidon; Seconal
SEDIMENTATION Rate: See Blood sedimentation
SEIZURES: See Convulsions; Epilepsy
SELECTIVE SERVICE: See Medical Preparedness
SELYE, HANS, in Bologna, Italy, 1443
SEMEN: See also Spermatozoa
Artificial Insemination: See Impregnation, Artificial
use of condom for collection of, 857
SEMINAL VESICULITIS [Harlin] *880
SEMINOMA: See Dysgerminoma
SENILITY: See Old Age
SENSATION: See also Paresthesia
intercourse without sensation, 611
loss of, in hands, 611
stab, on stimulating parietal peritoneum, [Auersperg] 1290—ab
SENSES: See Hearing; Taste; Vision
SENSITIVITY; SENSITIZATION: See Allergy
SEPTICEMIA: See Bacteremia
SERODIAGNOSIS: See Cancer diagnosis; Syphilis
SERUM
Blood: See Serum, plasma; and various subheads under Blood
nephrotoxic, Masugi's nephritis, [Roda] 687—ab
plasma (irridated) hypocoagulability; use as anticoagulant, [Cutler & others] *1057
Plasma, Therapeutic Use: See Blood Transfusion
plasma, workers exposed to, virus hepatitis in, [Kuh & Ward] *631
Rabbit: See Influenza; Meningitis, influenzal
Reaction: See Allergy
test for active tuberculosis, 1489—E
thermal coagulation in diagnosis, [Huggins & others] *11
SERVICEMEN: See Veterans
SEWAGE
untreated, from homes, 122
SEX: See also Fertility; Sterility
blood pressure according to, [Master & others] *1465
Function, Decline of: See Menopause
Glands: See Gonads
Hormones: See Androgens; Estrogenic Substances; Gonadotropins
Impotence: See Impotence
Intercourse: See Coitus
Organs: See Genitals
sexual activity in boy of 6, 1380
SHATTUCK Award: See Prizes
SHELLS: See Wounds, gunshot
SHIGELLA
enteritis, oral chloramphenicol vs. oral streptomycin, polymyxin B, sulfadiazine, (Ross & others) *1459; (aureomycin, footnote 4), *1460
SHINGLES: See Herpes zoster
SHIPS: See also Navy
quarantine and inspection requirements, eliminate duplication, July 1, 1265
SHOCK
Allergic: See Allergy
collapse and, 1194
from standing or walking on hard floors, 693
sudden episode, 148
Therapeutic: See Convulsions, therapeutic; Electric shock; Insulin shock
traumatic, lower nephron nephrosis, [Marán Miranda] 604—ab
treatment or prevention, solutions for [Darrow & Pratt] *437
SHORT WAVES: See Diathermy
SHOULDER: See also Clavicle
bursitis, differentiated from tearing or avulsion of subcapsularis, 407
hand syndrome in coronary heart disease, [Carroll] 1024—ab
painful, in coronary disease, [Rebecchi] 1526—ab
SHUNT Operation: See Portal Vein
SIALORRHEA: See Saliva
SICK HEADACHE: See Migraine
SICK: See Disease, chronic; Patients
Transport of: See Ambulance
SICKLEMIA: See Anemia, sickle cell
SICKNESS: See Disease; Health; Hospitals; Therapeutics
Convalescence from: See Convalescence
Insurance: See Insurance, sickness
Rate of: See Vital Statistics
SIGHT: See Vision
SIGHT-SCREENER Model 1235, 440
SIGMOID Colon: See Colon
SILICA
solubility, [Jephcott] 838—ab
SILICOSIS: See Pneumonoconiosis
SILK, Artificial: See Nylon
SILVER
nitrate, to prevent gonorrheal ophthalmia of newborn, [Watts & Gleich] *635; [Lehrfeld] 1360—C
protein solution, substitute for bladder instillations; 1222
SINGULTUS: See Hiccup
SINUS: See Maxillary Sinus
SKELETON: See Bones
SKIN: See also Dermatology; Tissues
anesthesia for venesection in blood bank work, [Wolf & others] *431
Blanching: See Vitiligo
Burns: See Burns; Sunburn
Cancer: See also Epithelioma
cancer caused by oils in engineering processes, [Cruickshank] 773—ab
cancer, curettement technic for biopsy, [Traenkle & Burke] *429
cancer in Florida, [Wilson] 1367—ab
cancer, sunlight cause of, [Hall] 1022—ab
discoloration under gold rings, 1298
Disease: See also Acne; Dermatomyositis Urticaria
disease from handling streptomycin, [Schäfer] 504—ab
SKIN—Continued
Disease (Industrial): See Industrial Dermatoses
disease, psychologic factors in, [Brandt] 843—ab
disease, side effects of chloramphenicol, 1193
disinfection with alcohol also cresols in tuberculosis hospitals, [Oatway] 761—C
Eruptions: See Eruptions
grafts for hernias and eventrations, [Dumont] 504—ab
grafts, reciprocal homografts to identify exchanged twins, [McIndoe] 685—ab
grafts (split), surface refrigeration anesthesia for cutting, [Gibson] 1524—ab
Hemorrhage: See Purpura
Inflammation: See Dermatitis
iron loss through, [Adams & others] 391—C
lead in, remove with positive and negative pole machines, 1534
moniliasis, 215
Mycosis: See Dermatophytosis; Tinea capitis
pathology, Earl D. Osborne Fellowship in, 565
Peeling: See Dermatitis exfoliativa
radiation, epithelioma and papilloma arising from, [Walter] 685—ab
radiation injuries, [Teloh] 928—ab
temperature and vascular function in urticaria, [Graham & Wolf] *1396
Test: See also Tuberculin
test for brucellosis in multiple sclerosis, [Spicknall & others] *1470; [Eisele & others] *1473
test for infectious hepatitis, [Henle] 1522—ab
Transplantation: See Skin grafts
Ulcers: See Ulcers
SKULL: See Cranium
SLEEP
Induced: See Anesthesia
infant strikes his head repeatedly during, 694
SLUDGED Blood: See Blood
SMALLPOX
diagnosis, laboratory, [Milzer] *219
outbreak in hospital, [Schulze] 926—ab
vaccination, immediate (so-called "immune") reaction to [Benenson] *1238
SMEGNA
carcinogenic agent in, [Bleich] *1054
SMITH, MAURICE I., solves etiology of jamaica ginger paralysis, [Viets] 391—C
SMOKING: See Tobacco
SMOTHERING: See Suffocation
SNAKE
bites, treatment, 612; 1038
SNOW Award: See Prizes
SOAP
fabricol, cause hypertension and acute nephritis? 1220
SOCIAL SECURITY: See also Federal Security Agency
Extension Bill, 185; 819; 1348
system, criticism of, Colombia, 1016
SOCIAL SERVICE
consultant of National Society for Crippled Children and Adults, 1353
history of, bicentenary of Dr. Pehr Dubb, 1112
National Conference on (2nd), Belgium, 489
SOCIALISM
communist affiliation of Association of Internes and Medical Students, Council report, 992
responsibility of American medicine in fight against, [Henderson] *783
Road Ahead: America's Creeping Revolution, [Flynn] 392—ab
SOCIALIZED MEDICINE: See Hospitals, expense insurance; Insurance, sickness; Medical Service Plans; Medicine, socialized; Medicine, state
SOCIETIES, MEDICAL: See also American Medical Association; under names of specific societies; list of Societies at end of letter S
bulletins of, received by A.M.A. Council on Medical Service, 990
County: See also Societies, Medical, state and county
county, Group Health Cooperative of Puget Sound charges against King County, 1262—E
county, hosts to medical students, Fla., 1351
county, should obtain C.C.A. list of ambulance planes, 1419
grievance committees, San Francisco Session, 990
Plans for Prepaid Medical Care: See Medical Service Plans
Societas Medica Scandinavica, Sweden, 488
Society of Pathology of Digestion and Nutrition, Spain, 758
state, A.M.A. reimbursement for collection of ducs, 1184
state and county, cooperation with U. S. Army, 1490
state and county, indoctrination course for executive personnel for, 749—OS
state and county, roster of executive Secretaries, 990
state, plans disaster relief, Pennsylvania, 1006

SOCIETIES, MEDICAL—Continued
state, urges blood typing for all persons, Pa., 1267
SODA Pop: See Beverages, carbonated
SODIUM
ascorbate solution, N.N.R., (Testgar) 897
Chloride: See also Salt
chloride in rats, hypertension due to, [Sapirstein] 683—ab
chloride orally in pink disease, [Cheek] 1212—ab
disodium phosphate to alkalize urine, 1128
fluoride, fluorosis, [Kilborn] 595—ab
iodate treatment of pruritus ani, [Belnap] 1452—ab
propionate in bread, 782
propionate, use in external infections of eyes, [Theodore] *226
tetrathiodiglycollate, treatment of arthritis, [Libenson] 1028—ab
SOFT Drinks: See Beverages, carbonated
SOIL: See also Clay
health in relation to, [Maynard] *807
SOLDIERS: See Armed Forces; Army, U. S.; Veterans
Heart: See Asthenia, neurocirculatory
SOLVENTS
used in dry cleaning cause hypertension and acute nephritis, 1220
SOMATIC CONDITIONS: See Psychosomatic Medicine
SOUND
waves, hazards of intense sound and ultrasound, [Davis] 136—ab
waves, ultrasonics in medicine, [Nelson] 137—ab
SOUP
Gerber's Junior Soup, mixed vegetables, 24
SOUTH AFRICAN Journal of Clinical Science: See Journals
SOUTH AMERICA: See under names of specific countries
SOVIET RUSSIA: See Russia
SPAS: See Health resorts
SPASM: See also Cramps; Tetany
abdominal, due to mephenesin (Tolserol), [Kositchek & Barnet] *22
effect on respiration in poliomyelitis, [Pohl] 137—ab
in poliomyelitis, [Caughey] 1370—ab
problem of, in skeletal muscle, [Harell & others] *640
treatment, antispasmodic drugs, [Chapman & others] *627
treatment, slowly absorbed suspension of d-tubocurarine chloride in traumatic injury, [Fuller] *789; (correction) 1190
SPASMOPHILIA: See Tetany
SPEAKING: See Speech
SPECIALISTS: See also under types of specialists
services under National Health Service, [Martin & others] *1423
SPECIALTIES: See also under names of specific specialties as Dermatology
A.M.A. resolution on certain specialties as practice of medicine, 1080; 1089
general practice first before specializing, (A.M.A. report) 981; (A.M.A. resolution on) 1083; 1091
Board: See American Board; Nutrition
SPECULUM
vaginal, self-retaining, [Gilbert] *893
SPEECH
disorders, hynotism in treatment of stammering, 779
stuttering problem today, [Karlin] *732
SPERMATIC Cord: See Varicocele
SPERMATOZOA: See also Semen
aspermia and cryptorchism, 1128
counts, 857
spermatogenesis and hot baths, 781
SPHINCTER MUSCLES
Oddi's, benign fibrosis, [Trommald] 1119—ab
SPINAL ANESTHESIA: See Anesthesia, spinal
SPINAL CORD
degeneration, liver extracts and vitamin B_{12}, [Ungley] 399—ab
diastematomyelia; transfixation of cord, [Neuhauser] 1523—ab
Diseases: See Poliomyelitis
funicular myelosis, use of folic acid, [Jequier] 1215—ab
radicular signs in poliomyelitis, [Neumann] 1525—ab
surgery, pyramidotomy in parkinsonian syndrome, [Putnam] 839—ab
tumors, intradural granulomas, [Bucy] 500—ab
SPINAL FLUID: See Cerebrospinal Fluid
SPINAL MENINGITIS: See Meningitis, cerebrospinal epidemic
SPINAL PUNCTURE
lumbar, headache after, in patients delivered vaginally, [Caldwell] 684—ab
headache, (reply), [Hodel] 612
SPINE: See also Ribs
anomalies (congenital): diastematomyelia, [Neuhauser] 1523—ab
curvature, scoliosis and lordosis, electroshock therapy with, [Kwalwasser] 1209—ab
curvature, scoliosis induced by radiation, [Arkin] 1519—ab
SPINE—Continued
hydatid disease of vertebrae, [Woodland] 563—ab
intervertebral disk hernia and brachialgia, Belgium, 488
intervertebral disk, laminectomy and sciatica (reply), [Ehni] 408
intervertebral disk rupture (lumbar), [Bradford] 595—ab
surgery, laminectomy and sciatica (reply), [Ehni] 408
SPIROCHAETA pallida: See Treponema pallidum
SPLANCHNICECTOMY: See Nerves
SPLEEN
Enlarged: See Splenomegaly
Excision: See Splenectomy
myeloid metaplasia, [Block & Jacobson] *1390
SPLENECTOMY
for thrombocytopenic purpura, 216
residuals, 939
SPLENOMEGALY
brucellar chronic cirrhosis, [Signorelli] 851—ab
SPLINT
pillow, Frejka, for congenital dislocation of hip, [Hart] *1301
SPONGE, Gelatin: See Gelatin
SPORTS: See Athletics; Golf; Swimming
SPOTTED Fever: See Rocky Mountain Spotted Fever
SPRAY: See Atomizer; Insecticides
SPRUE
incidence, role of fat ingested in diet in, [Gilroy] 322—ab
SPURS on heels, 1458
SPUTUM
coughing up semihard pellets of white pearly substance, 1382
STAB
sensation on stimulating parietal peritoneum, [Auersperg] 1290—ab
STAIN
for trichomonas vaginalis, 612
from silver preparations, 1222
teeth stained from ferrous sulfate, 942
STAMMERING: See Speech disorders
STANDING
on hard floors, fatigue from, 693
STAPHYLOCOCCUS
aureus, penicillin-resistant, [Berger] 210—ab; [Beigelman] 925—ab
infection, ayfivin for, [Arriagada] 848—ab
infections in maternity units, [Colbeck] 318—ab
penicillinase-producing, [Martin] 1215—ab
STARCH
laundry, ingestion by pregnant women, [Ferguson] 1208—ab
STASSEN, HAROLD, "Granny Racket", England, 828
STATE
Board: See State Board (*following*)
Health Department: See Health
Legislation: See Laws and Legislation
Medicine: See Medicine, state
Society: See Societies, Medical
STATE BOARD: See also Licensure
academic year (hours, weeks or months) required by, *453; *460
endorsing National Board of Medical Examiners' certification, *471; *472; 475—E
examinations in pediatrics, A.M.A. resolution on, 1086; 1093
officers, list of, *465
premedical training required by, *453; *459
requirements by various states for licensing of foreign graduates, *464
Statistics Number, June 3, 1950, page *441
STATES having basic science laws and year of enactment, *469; 475—E
STATISTICS: See also Interns and Internships; Licensure; State Board; Vital Statistics
Conference on Records and Statistics, 903
necessary? 1260—E
STATUTE of Limitations: See Medicolegal Abstracts at end of letter M
STEAM, DeVilbiss Steam Vaporizer, No. 149, 1487
STEAMSHIPS: See Ships
STEATOMA
multiple sebaceous cysts of the neck, electric current treatment, 610
STERILITY: See also Impotence
endometriosis cause of, 693
fluorine and, 1126
genital tuberculosis, 860
sperm counts; use of condom for collection of semen, 857
temporary, in Air Force Officer, 408
tubal insufflation (oviducts) and, 1040
STERILIZATION, BACTERIAL: See Disinfection; Milk, pasteurization
STERILIZATION, SEXUAL: See Testis excision
STERNUM
massive transfusion via, in medullary aplasia and leukemia, [Danopoulos] 322—ab
STEROIDS, effects on rheumatoid arthritis, [Polley & Mason] *1474
STETHOSCOPE
pseudopericarditis, error in cardiac auscultation, [Schnur] *969
STEVEN-JOHNSON DISEASE
mucocutaneous ocular syndrome, [Robinson] 1022—ab
STIGMINENE
bromide, treatment of abdominal distention, [Whitaker] 845—ab
STILBAMIDINE
treatment of bladder cancer, [Harrison] 844—ab
STILBESTROL: See Diethylstilbestrol
STING: See Bees; Wasps
STOCKINGS: See Hosiery
STODDARD SOLVENT
cause hypertension and acute nephritis? 1220
STOMACH: See also Gastro-
acidity, benign gastric ulcers with achlorhydria, [Heffernon] 142; 760—ab
acidity (total) of gastric contents, 214
biopsy with flexible gastroscope, [Benedict] 1366—ab
cancer after pernicious anemia, 1512
cancer cells, abrasive balloon for exfoliation of, [Panico & others] *1308
Distention: See Flatulence
fill stomach with air to visualize adrenal gland, [Kraus] 132—C
hair ball, trichobezoar, [Nelson] 1369—ab
Hemorrhage: See Hematemesis
Intragastric Drip: See also Peptic Ulcer
intragastric drip for anuria in lower nephron nephrosis, [Baden] 1375—ab
mucosa, prolapse into duodenum, 1359
mucosa (redundant), extrusion of, [Harris] 600—ab
secretion, hexamethonium iodide effect on, [Kay] 929—ab
sour stomach in aged man, 1222
Surgery: See also Peptic Ulcer, surgical treatment
surgery, broadening scope of resection, [Judd] 600—ab
surgery, hepatocholangiogastrostomy, [Seifert] 1373—ab
surgery, postgastrectomy syndrome, [Muir] 773—ab
surgery, treatment of duodenal stump in gastric resection, 1196
Ulcer: See Peptic Ulcer
STOOLS: See Feces
STORAGE of Blood: See Blood Transfusion, blood bank
STRABISMUS, 328
STREPTOCOCCUS
infection, penicillin treatment of, to prevent rheumatic fever, [Denny & others] *151
meningitis due to simultaneous double infections in children, [Vaden & others] *1402
pyogenes, infection, ayfivin for, [Arriagda] 848—ab
STREPTOMYCIN
Dihydro—: See Dihydrostreptomycin
incompatible antibiotics, 816—E
level in spinal fluid in tuberculous meningitis, [Hanssen] 1454—ab
sulfate, N.N.R., (Premo) 897
toxicity, effect on vestibular system, Netherlands, 130
toxicity: fatal encephalitis, [Campanacci] 400—ab
toxicity: scotomas, [Thomas] 1203—ab
toxicity, skin lesions from handling, [Schäfer] 504—ab
Treatment: See also Genitourinary System, tuberculosis; Larynx, tuberculosis; Meningitis, tuberculous; Osteomyelitis; Otitis Media; Pericarditis, tuberculous; Peritonitis, tuberculous; Tuberculosis; Tuberculosis of Lung
treatment, histopathologic changes in lungs after, [Mahon] 1116—ab
treatment, international conference on, Paris, 194
treatment in surgery of intracranial tuberculoma, [Obrador] 1120—ab
treatment, oral, of Shigella enteritis vs. chloramphenicol, [Ross & others] *1459
treatment plus paraaminosalicylic acid in ocular tuberculosis, [Bietti] 839—ab
treatment plus paraaminosalicylic acid in tuberculosis, [Anderson] 841—ab
treatment plus promizole in miliary and meningeal tuberculosis in children, [Lincoln] 678—ab
treatment plus sulfadiazine, aureomycin, or rabbit serum in influenzal meningitis, [Appelbaum & Nelson] *715
treatment plus sulfadiazine in influenzal type B meningitis, [McMorrow] 926—ab
treatment plus sulfadiazine in pneumonic plague, [Feng] 1213—ab
treatment, resistant strains of tubercle bacilli, 194; 1443
STRESS
role in urticaria, [Graham & Wolf] *1396
STRUMA: See Goiter
STUDENTS: See also Children; Education; Schools; Students, Medical; University
health, Belgium, 830
Health Service, second survey by A.M.A. Bureau, 477—E
Nurses: See Nurses and Nursing
undergraduate, tuberculin skin testing, [Krug] 1280—ab

STUDENTS, MEDICAL: See also Education, Medical; Graduates; Interns and Internships; Schools, Medical
American Medical Association for, proposed, 982; 1088
Association of Internes and Medical Students, investigation by A.M.A. Council, 992; 1092
basic orientation and education of, [Romano] *409
British Health Service and, [Diehl & others] *1494
county association guests, Fla., 1351
Fellowships: See Fellowships
Foreign: See Physicians, foreign
International Union of Students, relation to Association of Internes and Medical Students, Council report, 994; 1092
loan fund, Crosby Estate, 1438
loan fund of Kansas Medical Society, 1352
number, England, [Diehl & others] *1495
Prizes for: See Prizes
Scholarships: See Scholarships
Selective Service and, 1418
V-12 and ASTP, military medical situation, 1103; 1416—E; 1490
STUTTERING: See Speech disorder
SUBARACHNOID Hemorrhage: See Meninges
SUBDURAL Hematoma: See Meninges
SUCKING
instinct and pacifiers, 1040
SUDAN, asthma in, 149
SUFFOCATION
in babies, alleged accidental, [Bowden] 1031—ab
SUGAR: See also Dextrose
in Blood: See Blood sugar
Research Foundation, Inc., award, 1350
SUICIDE
attempted with barbiturates; metrazol and supportive therapy, [Jones & others] *884
attempted, with poison, study, Oslo, 1273
SULFADIAZINE
sulfamerazine and sulfamethazine mixtures, N.N.R., (Funk; Squibb), 1069
treatment, oral, of Shigella enteritis vs. chloramphenicol, [Ross & others] *1459
treatment plus penicillin, blood penicillin levels following, (reply) [Kagan] 696
treatment plus streptomycin of influenzal meningitis, [Appelbaum & Nelson] *715; [McMorrow] 926—ab
treatment plus streptomycin of pneumonic plague, [Feng] 1213—ab
SULFAMERAZINE
N.N.R., (Physicians' Drug) 1343
sulfadiazine and sulfamethazine mixtures, N.N.R., (Funk; Squibb) 1069
SULFAMETHAZINE
sulfadiazine and sulfamerazine mixtures, N.N.R., (Funk; Squibb), 1069
SULFATHIAZOLE
p-Nitrosulfathiazole (Nisulfazole), N.N.R., (description) 1155; (Breon) 1155
treatment of pneumonia in children with massive dose, [Friederichsen] 505—ab
treatment plus penicillin-silver nitrate to prevent gonorrheal ophthalmia of newborn, [Watts & Gleich] *635; [Lehrfeld] 1360—C
SULFHYDRYL COMPOUNDS
experimental diabetes and, 1416—E
SULFISOXAZOLE (gantrisin)
treatment of bacterial meningitis, [Rhoads] 594—ab
SULFOBROMOPHTHALEIN SODIUM
anaphylactoid reaction to, [Roth] *802
SULFONAMIDES
antithyroid agents, 1488—E
peritoneal use, Brazil, 197
Sulfadiazine: See Sulfadiazine
Sulfamerazine: See Sulfamerazine
Sulfathiazole: See Sulfathiazole
toxicity: anuria, [Oram] 1375—ab
toxicity: hematuria, [Nissen] 1375—ab
toxicity: hypersensitivity, secondary syndrome, [Suchett-Kaye] 1288—ab
treatment, renal complications, Denmark, 130
SULFONES: See Promizole
SULFOXONE SODIUM
N.N.R., (description) 1259; (Abbott) 1259
SULFUR
hair discolored after taking, 779
SUMMER Camps: See Camps
SUNBURN
treatment, sulfonamide hypersensitivity, [Suchett-Kaye] 1288—ab
SUNDERMAN, F. W., M.D., appointment, 662
SUNLAMPS: See Ultraviolet Rays lamps
SUNLIGHT: See also Sunburn
photosensitization therapy of acne vulgaris, 780
skin carcinogenesis, [Hall] 1022—ab; [Wilson] 1367—ab
SUPERSONICS: See Sound waves
SUPPOSITORIES
aminophylline (theophylline ethylenediamine), [Waxler & Schack] *736
SUPPURATION: See Abscess; Otitis Media; Ulcers
SUPRARENALS: See Adrenals
SURGEONS: See also Medicine, profession of; Physicians; Surgery
allergy to rubber gloves, 1296
establish research fund at U. of California, 380
SURGEONS—Continued
International College of, expands headquarters, 1351
Royal College of, War Collection, 1158—E
SURGERY: See also under diseases, organs and operations as Cesarean Section; Peptic Ulcer surgical treatment; Prostatectomy; Splenectomy; Stomach surgery
Amputation: See Amputation
Anesthesia in: See Anesthesia
Early Rising after Operation: See Convalescence
eosinophils response to ACTH in, [Roche] 925—ab
International Congress of, Buenos Aires, Aug. 1-5, 382
Moving Pictures concerned with: See Moving Pictures, Medical
National Congress of, Italy, discuss collapse and shock, 1194
Neurosurgery: See Neurosurgery
operation, consent to, 1344—E
operation (extensive) massive transfusions in, [Mino] 1279—ab
Operation (Illegal): See Abortion, criminal
Orthopedic: See Orthopedics
plastic, bone bank in, [Converse] 1209—ab
plastic, Foundation of American Society of, award, 564
postoperative atelectasis, phases of, [Hilding] 1204—ab
postoperative dicumarol prophylaxis, [Rehn] 1290—ab
postoperative pain after cholecystectomy, 150
postoperative paralysis in upper extremity, [Ewing] 503—ab
postoperative, parenteral nutrition with human serum albumin, [Fletcher] 684—ab
postoperative tetanus (fatal); penicillin or antitoxin treatment ineffective, [Van Duine] *175; (challenge use of tetanus toxin to booster immunity) [Workman; Fraser] 761—C
postoperative, use of blood and plasma to correct protein deficiency, [Allan] 593—ab
preoperative tests of hepatic function, 609
residencies in, establishment of single inspection service for, 1184
resuscitation after apparent death from spinal anesthesia [Hyde & Moore] *805; (correction) 1268
survey of surgical procedures in psychoneurotic women, [Ulett & Gildea] *960
SURGICAL GLOVES: See Rubber gloves
SURPLUS
U. S. Government real estate, 478
SWEAT
acid perspiration, 859
colored perspiration, 514
hyperhidrosis, 858
hyperhidrosis: banthine for, [Grimson & others] *1331
profuse, before meals; role of hypoglycemia, (reply), [Wolf] 782
SWEAT GLANDS
roentgen therapy of hidradenitis suppurativa axilaris, [Schenck] 501—ab
SWEDEN
alternating scarcity and plethora of physicians, 458
Austrian doctors imported to, 488; 1444
museum for history of medicine, 488
Swedish National Association against Tuberculosis, evaluates PAS, 1517-ab
SWIFT'S Disease: See Erythredema
SWIMMING
pools bar former polio patients; action unwarranted, 779
SWINDLERS: See Impostors
SWINEHERDS
disease of, in Israel, (correction), 914
SWISS
Society of Internal Medicine, meeting, Switzerland, 1013
SYMPATHETIC Nervous System: See Nervous System, Sympathetic
SYMPATHECTOMY
in arterial disorders in upper extremity, (film review) 1274
in hypertension, [Platt] 1371—ab
in hypertension with cardiovascular complications, [White & others] *1311
in phantom pain, late results, [Kallio] 1213—ab
lumbar, [Winsor] 1450—ab
SYNCELOSE, Cellothyl, methylcellulose-N.F., N.N.R., (description) 897; (Blue Line; Chilcott) 897
SYPHILIS: See also Venereal Disease; under specific organ or disease affected
Cerebrospinal: See Neurosyphilis
Diagnosis: See Syphilis serodiagnosis
in Negroes, Feeling all Right (film review) 762
in pregnancy, penicillin for, [Wammock] 1115—ab
international seminars on, 907
Neurosyphilis: See Neurosyphilis
serodiagnosis, effectiveness of mass blood testing program, [Smith] 846—ab
serodiagnosis, false positive Kahn test, 1127
serodiagnosis, false positive Wassermann test, 1457
serodiagnosis, positive serologic reactions after antisyphilitic treatment, 150
SYPHILIS—Continued
serodiagnosis, WHO is sponsoring international serodiagnostic conference, 565
toxins from Treponema pallidum, 327
treatment, aureomycin orally, [Kierland] 497—ab
treatment, penicillin plus fever in early type, [Plotke] 919—ab
treatment, penicillin, report on 726 patients retreated, [Thomas] 919—ab
treatment, penicillin, (Turkey) 312; (Italian Congress discusses) 1443
treatment, Wassermann test fastness, 857
SYRINGE
hypodermic, for inducing anesthesia in blood bank work, [Wolf & others] *431
removing oil from, 327

SOCIETIES AND OTHER ORGANIZATIONS

Acad.—Academy	*Indust.—Industrial*
Am.—American	*Inst.—Institute*
A.—Association	*Internat.—International*
Coll.—College	*M.—Medical*
Commn.—Commission	*Med.—Medicine*
Comm.—Committee	*Nat.—National*
Conf.—Conference	*Pharm.—Pharmaceutical*
Cong.—Congress	*Phys.—Physicians*
Dist.—District	*Soc.—Society*
Div.—Division	*Surg.—Surgery*
Found.—Foundation	*Surgs.—Surgeons*
Hosp.—Hospital	*S.—Surgical*

Advisory Board for M. Specialties, 754
Aero M. A., 191
Alabama Dermatology Soc., 1266
M. A. of the State of, 482
Albany M. Center Council, 753
Alcoholics Anonymous, 1007
All Nations Travel Bureau, 383
Alpha Chi Omega, 565
Gamma Delta, 665
Omega Alpha, Beta Chapter, 125
Alumnae A. of the Woman's M. Coll. of Pa., 664
Alumni A. of Northwestern University, 754
Am. Acad. of Allergy, 1506
Acad. of Dermatology and Syphilology, 565
Acad. of General Practice, 663
Acad. of Gen. Practice Chapters: Kentucky, 189; Montana, 753
Acad. of Orthopaedic Surgs., Inc., 126
Acad. of Tuberculosis Phys., 383
A. for Cleft Palate Rehabilitation, 306
A. for the Advancement of Science, 126, 1008
A. for the Surg. of Trauma, 825
A. of Genito-Urinary Surgs., 307, 904, 1506
A. of Indust. Phys. and Surgs., 828, 904, 907
A. of the History of Med., 382, 825
A. of University Women, 1106
A. on Mental Deficiency, 1267
Board of Anesthesiology, 1007
Board of Dermatology and Syphilology, 565
Board of Obstetrics and Gynecology, 825, 907
Broncho-Esophagological A., 306
Cancer Soc., 381, 565, 1268, 1438
Cancer Soc. Divs.: Genesee (Mich.) Unit, 663; Iowa, 1436; Kentucky, 1105, 1352
Coll. Health A., Illinois Section, 189
Coll. of Chest Phys., 565, 1008
Coll. of Hosp. Administrators, 380
Coll. of Phys., 1007, 1351
Coll. of Radiology, 1506
Coll. of Surgs., 1436
Coll. of Surgs. Chapters: Vermont, 1007
Cong. of Phys. Med., 1354
Council of Voluntary Agencies for Foreign Service, 382, 1353
Council on Rheumatic Fever, 1507
Diabetes A., 485, 754, 1268
Dietetic A., 1506
Electroencephalographic Soc., 565, 907
Found. on Mental Deficiency, 1267
Gastroenterological Soc., 485
Gerontological Soc., 191
Gynecological Soc., 1007
Hearing Soc., 484
Heart A., 564, 565, 754, 825, 1007, 1439, 1507
Hosp. A., 1008, 1506
Laryngological A., 907
Laryngological, Rhinological and Otological Soc., 126, 1007
Leprosy Found., 1105
Life Convention, 306
M. A., 125, 126, 305, 382, 482, 484, 565, 663, 754, 1107, 1267, 1506
M. Writers' A., 1506
M. Women's A., 484
Museum of Health, 664
Neurological A., 1004, 1007
Nurses A., 1506
Ophthalmological Soc., 307
Orthopedic A., 1007
Orthoptic Council, 383
Otological Soc., 191, 907
Physical Therapy A., 564, 565, 825
Proctologic Soc., 564, 825, 1438
Psychiatric A., 485
Psychoanalytic A., 825
Public Health A., 665, 1353
Public Health A. Sections: Western, 191
Radium Soc., 126
Red Cross, 663, 753, 1006, 1438, 1439
Registry of Pathology, 485
Rheumatism A., 565

Societies and Other Organizations—Continued
Am.—Continued
Social Hygiene A., 306
Soc. for Experimental Pathology, 191
Soc. for Pharmacology and Experimental Therapeutics, 484, 1268
Soc. for the Study of Sterility, 484, 907
Soc. of Clinical Pathologists, 306
Soc. of Plastic and Reconstructive Surg., 564
Steel & Wire Co., 1006
S. A., 564
S. Trade A., 1353
Trudeau Soc., 564
Trudeau Soc. Sections: Ohio, 564
Urological A., 191, 825, 1007
Urological A. Sections:
Mid-Atlantic, 126
Western, 126
Argentina Pediatric Soc., 189
Arizona Public Health A., 189
State Department of Health, 1504
Arkansas M. Soc., 663
Armed Forces Inst. of Pathology, 485, 1105
Armour Research Found., 484
Army Chemical Corps, 1105
Arthritis and Rheumatism Found., 1007
Arthritis and Rheumatism Chapters: New York, 1267
Associated Diplomates of the Nat. Board of M. Examiners, 484
A. for Am. Phys., 907
for Physical and Mental Rehabilitation, 307, 1107
for the Study of Internal Secretions, 485
of M. Illustrators, 382
of Military Surgs., 663
of State and Territorial Health Officers, 906
Atlantic Coast Line Railroad Surgs. A., 485
Atomic Energy Commn., 483, 564
Australian Coll. of Surgs., 752
Australasian Urological Soc., 752
Austrian Cong. of Phys., 1354
Van Swieten Soc., 1354
Baker, George F., Found., 190
Barbour-Randolph-Tucker (W. Va.) M. Soc., 564
Bartsch, Anna, Fund, 1266
Bay Dist. (Calif.) S. Soc., 380
Better Business Bureau, 824
Billings, Frank, Found., 189
Biological Photographic A., 1268
Blood Transfusion A., 753
Blood Transfusion Betterment A. of New York City, 753
Borden Co. Found., Inc., 1004
British A. of Physical Med., 1266
Bronx County M. Soc., 1267
Bunts, Frank E., Educational Inst., 1437
California Inst. for Cancer Research, 1436
M. A., 482
Soc. of Allergy, 1351
Soc. of Pathologists, 563
State Department of Public Health, 823
Canadian M. A., 307
Cape Town Post-Graduate M. A., 666
Caribbean Rabies Conference, 1507
Central A. of Obstetricians and Gynecologists, 1506
Chicago Diabetes A., 189
Gynecological Soc., 904
Health Department, 304
Metropolitan Dermatological Soc. of, 380
Ophthalmological Soc., 1351
Pediatric Soc., 904
Psychoanalytic Soc., 1105
Roentgen Soc., 904
Soc. of Allergy, 663
Soc. of Anesthesiologists, 904
Soc. of Internal Med., 904
Soc. of Physical Med. and Rehabilitation, 189
Tumor Inst., 823
Urological Soc., 482
Childs, Jane Coffin, Memorial Fund for M. Research, 752, 1438
Christian M. Soc., 484
Chronic Research Inst., 563
Ciba Found., 1004
Citizens Health Comm. (Ky.), 823
Civil Air Patrol, 1006
Cleveland, Acad. of Med. of, 1006
Collins, Joseph, Found., 1505
Colombian Soc. of Obstetrics and Gynecology, 666
Colorado State Board of Health, 752
Columbia County (N. Y.) Health Department, 381
Community Service Soc. (N. Y.), 824
Commn. on Chronic Illness, 565
Community Nutrition Inst., 305
Conf. of Presidents and Other Officers of State M. Socs., 564
Connecticut Arthritis and Rheumatism Soc., 563
Public Health A., 1504
State M. Soc., 308, 1504
Crosby Estate Student Loan Fund, 1438
Cruz, Oswaldo, Inst., 382
Cushing, Harvey, Soc., 307
Dade County (Fla.) Cancer Inst., 124
County (Fla.) M. A., 1351
Dane County (W. Va.) M. Soc., 906
Danish Soc. of Physical Med., 1266
Detroit (Mich.) S. A., 305
Dist. of Columbia M. Soc., 1004
Dubuque (Ia.) Adult Educational Forum, 380
County (Ia.) M. Soc., 380
DuPont Inst., 304
Ellason, Eldridge L., Memorial Fund, 664
Elks Nat. Found., 1353
Expert Comm. on Health Statistics, 383
Eye-Bank for Sight Restoration, Inc., 1436
Fayette County (Ky.) M. Soc., 482
Federal Bureau of Investigation, 754
Security Agency, 191
Federated Women's Clubs of Illinois, 823
Federation of Am. Socs. for Experimental Biology, 304, 306
of Catholic Phys'. Guild, 484
of Jewish Philanthropies, 190
Florida M. A., 823
Forlanini, Carlo, Inst., 1008
Found. of the Am. Soc. of Plastic and Reconstructive Surg., 564
French Cong. of Otorhinolaryngology, 1354
Soc. of Gynecology, 126
Fulton County (Ga.) M. Soc., 189
Geneva (N. Y.) Acad. of Med., 483
Georgia, M. A. of, 904
Goldblatt Brothers Found., 752
Gould, Robert, Found., 1438
Governor's Civil Defense Comm. (Pa.), 1006, 1267
Greater New York Hosp. A., 1352
Greek War Relief A., 382
Hahnemann M. Coll. Alumni A., 306
Harvard M. Soc. of Southern California, 563
Harvey, Basil, Fund, 663
Hawaii Territorial M. A., 1267
Health Information Found., 907
Hektoen Inst. for M. Research, 663, 1351
Hematology Research Found., 484
History of Med. Soc. of Tulane University, 663
Hurd, Kate C., '88 Fund, 664
Idaho Public Health A., 482
Illinois A. of M. Health Officers, 380
Civil Service Commn., 189
Department of Public Health, 823
Department of Public Welfare, 823
Heart A., 1004
Hosp. A., 1004
Pharm. A., 904
Polio Planning Comm., 1004
Psychiatric Soc., 1004
Soc. for Mental Hygiene, 124
State Dental Soc., 904
State M. Soc., 124, 189, 482, 904, 1105, 1351
State Nutrition Comm., 304
Woman's Press A., 482
India, Tuberculosis A. of, 383
Indiana Junior Chamber of Commerce, 1266
Eleventh Dist. M. A., 189
Third Dist. M. Soc., 305
Inst. for Tuberculosis Research, 380
of Cancer Research, 381
of Indust. Med., 381
of Living, 1105
of Med. of Chicago, 189, 482
of Physical Med. and Rehabilitation, 381, 1352
of Psychological Research of Teachers Coll., 664
on Social Aspects of M. Care, 305
Insular (P. R.) Health Department, 907
Inter Am. A. of Gastroenterology, 666
Inter-Am. Comm. on Brucellosis, 307
Cong. on Brucellosis, 307
Internat. Anatomical Cong., 905
Coll. of Surgs., 1351
Coll. of Surgs. Sections: Wisconsin, 191
Conf. of Gerontological Socs., 191
Cong. of Clinical Pathology, 306
Cong. of Internal Med., 1268
Cong. of Pediatrics
Cong. of Physiology, 306
Cong. of Psychiatry, 664, 1268
Cong. of Radiology, 304
Cong. of Surgs., 382
Cong. of Surgs.:
Argentine Chapter, 382
Cong. on Amebiasis, 665
Cong. on Diseases of the Chest, First, 1008
Cong. on Microbiology, 382
Cong. on Ophthalmology, 663
Ladies' Garment Workers' Union, 1352
Leprosy A., 665
Physiological Cong., 304
Poliomyelitis Cong., 1008
Soc. of Angiology, 1107
Union Against Tuberculosis, 907
Interprofessional Council of Monroe County (N. Y.), 1352
Iota Phi Lambda, 124
Iowa Press A., 1436
Radio News Editors A., 1436
Soc. for Mental Hygiene, 905
State Board of Health, 1352
State Department of Health, 1436
State M. Soc., 563, 1436
Jackson, Roscoe B., Memorial Laboratory, 1005
Jefferson County (Ky.) M. Soc., 663, 1106
Joint Commn. for the Improvement of Care of the Patient, 1506
Kanawha-Charleston (W. Va.) Health Department, 191, 564
Kansas M. Soc., 124, 1352
State Board of M. Registration and Examination, 1105
Tuberculosis and Health A., 1105
University of, Endowment A., 1352
Kent County (Mich.) M. Soc., 125
Crippled Children Commn., 1266
Kentucky, Rural, M. Scholarship Fund., 1105
Soc. for Crippled Children, 1106, 1266
State Department of Health, 1005, 1266
State Hosp. A., 1266
State M. A., 305, 482, 663, 1005, 1352
State Physical Therapy A., 1266
Lackawanna County (Pa.) M. Soc., 754
Laurentian Hormone Conf., 126
Life Insurance M. Research Fund, 665
Louisiana State Gynecological and Obstetrical Soc., 905
State M. Soc., 482
Louisville-Jefferson County (Ky.) Health Department, 1266
Maine M. A., 563, 1005
Marion (Ky.) Business and Professional Women's Club, 1504
Maryland Department of Mental Hygiene, 482
Medical and Chirurgical Faculty of the State of, 752
Soc. for M. Research, 1504
Soc. for the Prevention of Blindness, 382
State Board of Health, 752
Massachusetts Department of Mental Health, 482
Department of Public Health, 823
M. Soc., 1005
Public Health A., 190
Soc. of Examining Phys., 823
Trudeau Soc., 823
Mayo Found. and Clinic, 483, 1267
M. Alumni Soc. of the University of Pennsylvania, 381
Coll. of Va. Alumni A., West Virginia Chapter, 1438
Library A., 307
School Soc. of the University of Wisconsin M. School, 906
Student Loan Fund of the Kansas M. Soc., 1352
Women's Internat. A., 1353
Memphis and Shelby (Tenn.) County M. Soc., 1007
Mental Health Inst. for Public Health Phys., 382
Metropolitan Life Insurance Co., 485, 907, 908
Michigan Department of Health, 752, 1437
State M. Soc., 663
Mid-Summer Radiological Conf., 1007
Milk Found., 482
Minnesota Soc. for the Prevention of Blindness, 382
State Board of Health, 305, 905
State Department of Health, 1005
State M. A., 753, 1005, 1505
Mississippi State M. Education Board, 753
Valley M. Soc., 907, 1506
Missouri State M. A., 824
Monroe County (N. Y.) M. Soc., 1352
Montana Acad. of Oto-Ophthalmology, 753
Obstetrical and Gynecological Soc., 753
State Board of Health, 1005
State M. A., 305, 753, 1267
Montour County (Pa.) M. Soc., 664
Nat. Acad. of Sciences, 666
A. of Science Writers, 383
A. on Chronic Illness, 565
Board of M. Examiners, 754, 1504
Cancer Inst., 904, 1004
Council to Combat Blindness, 1438
Federation of Licensed Practical Nurses, 1506
Federation of Women's Press A., 1105
Found. for Infantile Paralysis, 663, 825, 1004, 1908
French Order of Public Health, 1505
Health Council, 1353
Insts. of Health, 1005
Inst. of Mental Health, 483
Junior Chamber of Commerce, 1266
M. A., 1353
Organization of Public Health Nurses, 1506
Research Council, 307, 485, 666, 1105, 1268, 1436, 1438, 1505
Research Council of Canada, 1507
Safety Council, 665, 1354
Soc. for Crippled Children and Adults, 565, 824, 1353
Soc. for M. Research, 907
Soc. for the Prevention of Blindness, 380
Tuberculosis A., 565, 825, 907
Vitamin Found., 825
Nebraska M. Found., 563
State M. A., 125, 563
Nemours Found., 304
Neurosurgical Soc. of Am. 1267
Newcomen Soc. of Am., 754
New England A. of General Practice, 1253
Soc. of Physical Med., 485
State M. Socs., 191
New Hampshire M. Soc., 1506
State Health Department, 664
New Hanover (N. C.) County M. Soc., 1006
New Jersey Gastroenterological Soc., 1005
M. Soc. of, 125
State Department of Health, 1437
New Mexico M. Soc., 1005
New Orleans Graduate M. Assembly, 905
New York Acad. of Med., 125, 664
Acad. of Sciences, 305
New York City, Coordinating M. Council for Cerebral Palsy of, 664
City Department of Health, 563, 1267, 1505
City of, Department of Hosps., 1005, 1505

Societies and Other Organizations—Continued
New York—Continued
Department of Health, 305, 381, 483, 563, 1437
Found., Inc., 381, 565
Heart A., 664
M. Soc. of the State of, 483, 1106, 1267, 1437
Mental Health Comm., 1352
Public Health Council, 381
Soc. for Cardiovascular Surg., 664
State A. for Crippled Children, 824
State A. of Public Health Laboratories, 381
State Citizens' Comm. of One Hundred for Children and Youth, 125
State Department of Mental Hygiene, 1352
State Health Department, 1505
State Workmen's Compensation Board, 381
Tuberculosis and Health A., 753, 905
North Carolina, M. Soc. of the State of, 483
North Dakota Diabetic A., 190
Pediatrics Soc., 1353
State M. A., 190
Oak Ridge Inst. of Nuclear Studies, 564, 1267
Ohio Department of Health, 664, 1437
State M. A., 664
Tuberculosis and Health A., 564
Oklahoma M. Research Found., 125
State Department of Health, 1506
State M. A., 125, 483, 1107, 1506
Pan Am. Conf. on Leprosy, 665
Pan Am. Sanitary Bureau, 307, 665, 1106, 1507
Pennsylvania Acad. of Ophthalmology and Otolaryngology, 906
Conf. of Tuberculosis Secretaries, 306
Department of Health, 381, 824
M. Soc. of the State of, 484, 1006, 1267, 1353
Trudeau Soc., 306
Tuberculosis and Health Soc., 306, 824
Phi Delta Epsilon, 125
Lambda Kappa, Alpha Rho Chapter, 124
Philadelphia, Coll. of Phys. of, 484, 1506
County M. Soc., 1006
County M. Soc., Aid A. of the, 664
Department of Public Health of, 906
Laryngological Soc., 381
Soc. for Crippled Children and Adults, 1006
Pittsburgh Obstetrical and Gynecological Soc., 1006
Potomac Soc. of Anesthesiologists, 907
Prudential Insurance Company, 1504
Radium Chemical Co., Inc., 1437
Research Council on Problems of Alcohol, 666
Rhode Island M. Soc., 190, 1006
Rochester (N. Y.) Acad. of Med., 1005
Rockefeller Inst. for M. Research, 1005
Rocky Mountain Cancer Conf., 908
Radiological Soc., 1007
Runyon, Damon, Memorial Fund, 1268
St. Louis Board of Education, 824
Council on Community Nursing, 824
County (Minn.) M. Soc., 305
(Mo.) Hospital Council, 824
San Francisco, X-ray Study Club of, 904
Sangamon County (Ill.) M. Soc., 189, 1506
Scaife, Sarah Mellon, Found., 1353
Schering Corp., 1005
Sharp and Dohme, 381
Sigma Delta Epsilon, 1008
Sloan Kettering Inst. for Cancer Research, 1106
Sociedade Brasileira de Ortopedia e Traumatologia, 666
Soc. for Experimental Biology and Med., Illinois Section, 482
for Pediatric Research, 564
for the Prevention of Cruelty to Animals, 905
of Am. Bacteriologists, 307
of Radiographers, 383
of the New York Hosp., 1106
Solomon, Dr. Jerome D., Memorial Research Found., 663
South Africa, M. A. of, 666
South African Inst. for M. Research, 666
South Carolina M. A., 125, 906
South Dakota State M. A., 190, 1107
Southeastern S. Cong., 665
S. Cong., West Virginia Section, 1438
Southwestern Kentucky M. A., 823
Spokane Soc. of Internal Med., 382
S. Soc., 1267
Syracuse (N. Y.) Cerebral Palsy and Handicapped Children's A., 824
Syrian Health Department, 483
Tennessee Coal, Iron and Railroad Company, 380
Public Health A., 1007
State M. A., 564
Texas, State M. A. of, 906
Undergraduate Research Soc. of Hahnemann M. Coll., 306
Union Miniere du Haut Katanga, 1437
Unitarian Service Comm. Inc., 382, 907
United Hosp. Fund, 753
Mine Workers Health and Welfare Fund, 1353
Nations Internat. Children's Emergency Fund, 383
U. S. Department of the Interior, 305
Department of State, 483
Mexico Border Public Health A., 307
Nat. Comma. for the United Nations Educational, Scientific and Cultural Organization, 665
Public Health Service, 382, 485, 563, 564, 752, 825, 905, 906, 907, 908, 1005, 1008, 1105, 1107, 1266, 1268, 1353, 1354, 1439, 1507
United Steel, 1006
Utah State Dental A., 1438
State Department of Health, 1438
State M. A., 1438
Variety Club, 1267
Vermont Bar A., 1007
State M. Soc., 1007, 1506
Virginia Acad. of Science, 906
Visiting Nurses A., 663
Warren County (N. Y.) M. Soc., 483
Washington State Department of Health, 1267
State Heart A., 1267
State M. A., 190, 1506
West Virginia Acad. of General Practice, 564
Acad. of Ophthalmology and Otolaryngology, 1007
Citizen's Health Planning Comm., 1353
Heart A., 564
Rural Health Conf., 126
State Board of Health, 906
State Department of Agriculture, 191
State Department of Health, 126
State M. A., 126, 1007, 1353, 1438
Western A. of Ind. Phys. and Surgs., 382, 1351
Whitman, Marcus, Found., Inc., 190
Wisconsin Heart A., 484
Mental Health Authority, 906
National Guard, 1438
State Board of Health, 1438
Wisconsin, State M. Soc. of, 1438
Woman's Auxiliaries: Delaware, 1104; Illinois, 124; Kansas, 125; Kentucky, 1005, 1105; Maine, 563; Maryland, 1106; Montana, 305, 753; New Jersey, 125; Oklahoma, 483; Rhode Island, 190; Washington, 1506
Wood, Leonard, Memorial, 1105
World Health Assembly, 666, 907, 1438
Health Organization, 307, 383, 565, 665, 666, 907, 1438, 1507
Zeta Phi Beta Sorority, 124

T

T.E.P.
hazard of aerial spraying of insecticides, 1158—E
T-TUBE
use in cholangiography, [Carter & Gillette] *952
TABES DORSALIS
pains, 406
TABLE
routine angiocardiography; [Axén & Lind] *540
TACHYCARDIA
nodal, after digitalis overdosage, [Stellar] 1278—ab
paroxysmal auricular, neostigmine dosage for, (reply) [Waldman & Pelner] 514
paraoxysmal ventricular, [Armbrust] 202—ab
ventricular, with vascular collapse, after digitoxin, [Fremont & King] *1052
TAENIA Infection: See Tapeworm Infection
TAGATHEN
antihistaminic drugs for colds, [Hoagland & others] *157
TALC
granuloma due to, [Oliver] 1033—ab
TALKING: See Speech
TALLNESS: See Body height
TALUS
fracture of astragalus, 1381
TAPAZOL
treatment of hyperthyroidism, [Reveno & Rosenbaum] *1407
TAPEWORM INFECTION
intestinal worms, (reply), [Stilwell] 860
TASTE
appetite and olfactory acuity, [Janowitz & Grossman] 391—C
TATTOOING
needle, serum jaundice transmitted by, [Roberts] 498—ab
TAUSSIG-BLALOCK Operation: See Heart anomalies
TAX
income, A.M.A. resolution on exemption, 1084; 1095
TAY-SACHS Disease: See Idiocy, amaurotic
TEACHING: See Education, Medical
TEARS, Lack of: See Keratoconjunctivitis sicca
TECHNICON Cardiograph, 1069
TECHNOLOGISTS
course for training laboratory personnel at U. of Tennessee, 825
hazard of virus hepatitis, [Kuh & Ward] *631
medical, approved schools for, *102; 118—E
survey of infection among laboratory workers, U.S.P.H.S., 1187
tuberculosis in, 478; (protective measures) 658—E
TEETH: See also Dentistry; Gums
artificial, dental protheses and intraoral carcinoma, [Hobaek] 850—ab
caries, amelioration of fluorosis by aluminum salts, [Venkataramanan] 849—ab
caries (experimental), oxalates prevent, [Twedt] 1027—ab
caries, fluoride programs to reduce, by U.S.P.H.S., 1503
caries, fluorosis, [Kilborn] 595—ab
caries in cotton rat on human diet, [Zepplin] 923—ab
causes of grinding of teeth in children, (reply), [Bulger] 612
TEETH—Continued
disease, campaign against, Denmark, 388
metal restoration cause glossdynia? 1457
peridontoclasia (pyorrhea alveolaris), 859
staining, after ferrous sulfate, 942
TELANGIECTASIA
hemorrhagic, hereditary, [Garland] 1288—ab
TELEVISION
A.M.A. program of Scientific Assembly, 257
health education, 183—E
TEMPERATURE: See Climate: Cold; Heat
TEMPERATURE, BODY: See also Fever
basal, hazard of vaginal method: thermometer in bladder, [Schloss & Solomkin] *804
of Skin: See Skin
TENDONS: See also Fascia
bursitis, 407
sheaths, treatment of pulp space infection, [Rennie] 142—ab
TENUTO, FREDERICK J., F.B.I. seeks trace of murderer, 754
TERATOMA: See Epidermoid
TERFONYL
N.N.R., (Squibb) 1069
TERMINOLOGY
arteriosclerosis with atherosclerosis, identity of, [Moschcowitz] *861
drug addiction and drug habituation defined by WHO committee, 973—E
Guillain-Barre Syndrome, 25 names attached to clinical picture, 967—ab
protein, origin of word, 1071—E
rehabilitation defined, adopted by A.M.A. Council, 654
virus defined, 1048—ab
TERRAMYCIN
treatment, clinical use, [King & others] *1
treatment of pneumococcic and primary atypical pneumonia, [Melcher & others] *1303
treatment of venereal disease, [Hendricks & others] *4
TEST TUBE BABY: See Impregnation, artificial
TESTIS: See also Gonads; Scrotum; Spermatozoa
excision plus diethylstilbesterol to control prostate cancer, [Nesbit & Baum] *1317
excision, sex ability following orchiectomy, 514
Hormone: See Androgens
Inflammation, diethylstilbestrol in orchitis due to mumps, [Norton] *172
undescended, aspermia and cryptorchism, 1128
undescended, cryptorchism and enuresis, 941
TESTOSTERONE: See Androgens
TETANUS
antitoxin given to mother; fetal death follows, 405
antitoxin, myocardium infarction after giving, [McManus] 204—ab
antitoxin, refrigeration, 215
postoperative fatal; penicillin or antitoxin treatment ineffective, [Van Duine] *175; (challenge use of tetanus toxin to booster immunity) [Workman; Fraser] 761—C
toxoid, aluminum hydroxide adsorbed, N.N.R., (description) 241; (Cutter) 241
toxoid combined with diphtheria toxoid, aluminum hydroxide adsorbed, N.N.R., (description) 241, (Cutter) 241
toxoid combined with diphtheria toxoid and pertussis vaccine, aluminum hydroxide adsorbed, N.N.R., (description) 813; (Cutter) 813
toxoid combined with diphtheria toxoid and pertussis vaccine, abscess after injection, 1222
toxoid, use of procaine hydrochloride with, 696
treatment, tracheotomy, [Creech] 772—ab
TETANY
calcium deficiency, [Youmans] *1254
etiology: hypermetabolism due to thyroid medication, [Weiner] 1197—C
spasmophilia and work, Paris, 569
TETRAETHYLAMMONIUM
bromide in rheumatoid arthritis, [Howell] 602—ab
chloride in angina pectoris, [Atkinson] 1019—ab
chloride in essential hypertension [Duret] 1290—ab
chloride in multiple sclerosis, [Schumacher] *1243
TETRAETHYLTHIURAM monosulfide: See Antabuse
TETRALOGY of Fallot: See Heart anomalies
TEXAS, University of: See University
THALLIUM
toxicosis, BAL for, [Mazzei] 208—ab
THEELIN: See Estrone
THELESTRIN
N.N.R., (Carnrick) 970
THEOPHYLLINE
in Blood: See Blood
salyrgan-theophylline, N.N.R. (Winthrop Stearns) 1486
THEOPHYLLINE ETHYLENEDIAMINE: See Aminophylline
THEPORIN
treatment of common cold, [Cowan & Diehl] *421

THERAPEUTICS: See Blood Transfusion; Baths; Diathermy; Drugs; Fever, therapeutic; Occupational Therapy; Roentgen Therapy; etc.
Bed Rest in Treatment vs. Early Rising: See Convalescence
THERMOCOUPLE, U.M.A., 971
THERMOMETER
removal from bladder with Stern-McCarthy resectoscope, [Schloss & Solomkin] *804
THERMOTHERAPY: See Diathermy
THIAMINE HYDROCHLORIDE
Experimental Thiamin Deficiency (film review), 1274
N.N.R., (Endocrine Co.) 1343
treatment of multiple sclerosis, [Schumacher] *1245
THIGH: See Hip; Pelvis
THIOCYANATES
antithyroid agents, 1488—E
THIOMERIN: See Mercaptomerin
THIOPENTAL (pentothal)
treatment of alcoholism, [Lemere] 1023—ab
THIOURACIL
antithyroid agents, 1488—E
Methyl: See Methylthiouracil
Propyl: See Propylthiouracil
treatment (prolonged), thyroid tumors in rats after, [Money] 1119—ab
THIURAM
Tetraethyl (antabuse): See Antabuse
THORACOPLASTY: See Thorax surgery
THORAX: See also Chylothorax; Pneumothorax; Ribs; Sternum
Chest X-Ray Examination: See also Tuberculosis, case finding
chest x-ray examination during pregnancy, 611
chest x-ray examination (mass), lung lesions discovered by, [Clark & others] *943
Fairchild-Huxley Chest Respirator, 1157
International Congress on Diseases of Chest (1st), 1008
Newman expansometer, 181
pain and prostatic cancer, 695
surgery, angiocardiography in, [Steinberg] 502—ab; [Weiss] 687—ab
surgery, pneumonectomy followed by thoracoplasty, [Iverson] 1207—ab
transthoracic impalement injury; recovery, [Schmitt] 688—ab
THORNS
cat scratch disease due to, 1193
THREADWORMS: See Oxyuriasis
THROAT: See also Larynx; Nasopharynx; Neck; Otorhinolaryngology; Tonsils
tuberculous ulcer, 941
THROMBIN
amount required to clot 1 cc. of plasma, [Cutler & others] *1058
THROMBOCYTOPENIA: See Purpura, thrombopenic
THROMBOEMBOLISM: See Thrombosis
THROMBOPHLEBITIS: See also Phlebitis
postphlebitic syndrome, [Ochsner] 847—ab
THROMBOSIS: See also Embolism; Thrombophlebitis
ball, (pedunculated) in hypertensive heart, [Strade] *1409
Coronary: See also Myocardium infarction
coronary, and cholesterol, [Morrison] 494—ab
coronary, choline as lipotropic agent in, [Morrison] 683—ab
coronary, diet low in cholesterol and calories for patients, 1532
coronary, long term dicumarol therapy to prevent, [Nichol] 1450—ab
coronary, prognosis; normal electrocardiogram in recovered case? 610
coronary, trauma relation to, 214
mesenteric, resect 6 feet of intestine, survival, [Koon] *1408
mural, in renal artery; relation to atherosclerosis, [Heard] 1031—ab
postoperative dicumarol prophylaxis, [Rehn] 1290—ab
retinal venous, prevention, [Klien] 765—ab
thromboembolism in myocardial infarction, anticoagulants for, [Schilling] *785
thromboembolism in myocardial infarction, cause of death, [Schilling] *787; [Doscher] 1447—ab
venous acute, heparin in, [Bauer] 1277—ab
venous, anticoagulant therapy, [Vander Veer] 836—ab; [Duff] 1278—ab
venous, dicumarol prophylaxis in women, [Smith] 1285—ab
THRUSH: See Moniliasis
THYMECTOMY: See Thymus excision
THYMUS
excision in myasthenia gravis, [Viets] 601—ab
THYROID: See also Goiter; Goiter, Toxic; Parathyroid
antithyroid agents, mode of action, 1488—E
cancer in children, [Hare] 1210—ab
cancer, incidence, mode of origin, [Young] 1030—ab
extract to control hypertension, [Menof] 1213—ab
function in mental disease, [Bowman] 677—ab
function, radioiodine test evaluated, [Jaffe & Ottoman] *515
Hyperthyroidism: See Hyperthyroidism
THYROID—Continued
Hypothyroidism: See Hypothyroidism
tumors in rats from thiouracil, [Money] 1119
THYROTOXICOSIS: See Goiter, Toxic
TIC: See Spasm
Douloureux: See Neuralgia, trigeminal
TICK FEVER: See Rocky Mountain Spotted Fever
TIN
treatment of furunculosis outdated, 1298
TINEA
capitis, salicylanilide, ansadol, N.N.R., (description) 1485; (Rorer) 1485
capitis, Zincundesal (Salundek), N.N.R., (description) 1157; (Wallace & Tiernan) 1157
TINNITUS
aurium, high pitched, 779
TIREDNESS: See Asthenia; Fatigue
TISSUES: See also Cells; Mucous Membrane; Skin; under names of specific organs as Pancreas
composition and expenditure of water and electrolytes, relation to fluid therapy, [Darrow & Pratt] *365; *432
cytochemical changes in lupus erythematosus, [Klemperer] 1366—ab
protein and circulating protein, [Harroun] 769—ab
Thinnest Slice, (film review), 762
transplant in testing materials for carcinogenic action, [Smith] 201—ab
Ulnar Nerve and Soft Tissue Defect (film review), 1274
TOBACCO
chewing, 514
smoking, 696
smoking and cancer, [Levin & others] *336; [Schrek] 498—ab; [Grace] 1446—C
smoking, etiologic factor in bronchiogenic cancer, [Wynder & Graham] *329; [Grace] 1446—C
TOLSEROL: See Mephenesin
TONGUE
black, from aureomycin, [Phillips] 1514—C
black hairy, [Lefkovits & Lapidus] *1482
geographic, 858
glossodynia, dental restorations cause? 1457
TONSILLECTOMY
amenorrhea after, 513
technic, relative merit of various technics, 940
TONSILS
Excision: See Tonsillectomy
hypertrophy, [Küstner] 209—ab
TOOTH: See Teeth
TORULOSIS: See Cryptococcosis
TOURNIQUET
air embolism in blood donors; use of vacuum set; [Ende & Ziskind] *1483
in physiologic amputation, [Large] 1117—ab
TOWNSEND PLAN
for old age pensions, 748
TOXEMIA of Pregnancy: See Pregnancy
TOXIC GOITER: See Goiter, Toxic
TOXICOLOGY: See Poisoning
TOXINS: See Clostridium; Treponema pallidum
TOXOID: See also Diphtheria; Tetanus
procaine hydrochloride used with, 696
TOXOPLASMOSIS
infantile, [Rodney] 1282—ab
virus, prepare animal serum which neutralizes 1272
TRACHEOBRONCHIAL Tree: See Bronchus
TRACHEOTOMY
treatment of tetanus, [Creech] 772—ab
TRACHOMA
incidence, Turkey, 311
treatment, lutazol and ophtazol, [Tsopellas] 1213—ab
TRADE Hazard, Poisoning: See Industrial Diseases; Industrial Health, use
Restraint of Trade: See Medical Jurisprudence
TRAFFIC Accidents: See Automobiles accidents
TRAINING: See Education, Medical; Nurses and Nursing; Schools
TRANSFUSION: See Blood Transfusion
TRANSPLANTATION: See Skin grafts; Tissues
TRANSPORTATION: See Automobiles; Ships
of Sick and Wounded: See Ambulance
TRANSURETHRAL Resection: See Prostate
TRASENTINE
effect on motor activity of small intestine, [Chapman & others] *629
TRAUMA: See also Accidents; Fractures; Korean War; Wounds; under specific organs as Brain; Kidneys; etc.; Medicolegal Abstracts at end of letter M
arthritis due to, 942
asthma and, 612
Bombs Causing: See Atomic Energy
coronary thrombosis relation to, 214
Industrial: See Workmen's Compensation
polyhydramnios not caused by, 942
Shock: See Shock, traumatic
transthoracic impalement injury with recovery, [Schmitt] 688—ab
treatment, slowly absorbed suspension of d-tubocurarine chloride, [Fuller] *789; (correction) 1190
TRAVAMIN
plasma hydrolysate, N.N.R., (description) 1157; (Baxter) 1157
TRAVEL: See also Automobiles; Aviation; Ships
cholera via pilgrimages, 666
health problem of the Kon-Tiki Expedition, 1195
immunizations before going to Europe, 405
TREPONEMA
pallidum, Infection: See Syphilis
pallidum toxins, 327
TRICHOBEZOAR, [Nelson] 1369—ab
TRICHOMONAS
infection of intestines, 1298
infection of prostate, 150
vaginalis, cause of vaginal discharge in girls 6 and 8, 1533
vaginalis, stain for, 612
TRICHOPHYTON Infection: See Dermatophytosis
TRIDIONE: See Trimethadione
TRIHEXYLPHENIDYL (artane)
treatment in multiple sclerosis, [Schumacher] *1249
TRIMETHADIONE
treatment in multiple sclerosis, [Schumacher] *1248
TRIMETON: See Prophenpyridamine
TRIORTHOCRESYL PHOSPHATE
etiology of jamaica ginger paralysis, [Viets] 391—C
TRIPELENNAMINE HYDROCHLORIDE (pyribenzamine)
toxicity: agranulocytosis, [Hilker] *741; [Martland & Guck] *742
toxicity: anemia, [Crumbley] *726
treatment of chronic urticaria, 149
treatment of colds, [Hoagland & others] *157; [Cowan & Diehl] *421
treatment of whooping cough, [Helman] 143—ab
TRI-SULFAMETH, N.N.R., (Funk) 1069
TROPICAL DISEASES: See also Malaria; Tropical Medicine; Yellow Fever
in veterans, [Mackie] 682—ab
TROPICAL MEDICINE
A.M.A. exhibit symposium on, San Francisco Session, 273
TROPICAL TYPHUS: See Tsutsugamushi Disease
TROPICAL ULCERS: See Leishmaniasis
TROPICS
health problem of Kon-Tiki Expedition, 1195
TRUDEAU Medal: See Prizes
TRUMAN Reorganization Plan No. 27: See United States Department of Health, Education and Security
TRYPANOSOMIASIS
Chagas' disease and megaesophagus, 1512
complications: myocarditis, [Torres] 143—ab; 390
TRYPAN RED
treatment of multiple sclerosis, [Schumacher] *1246
TSUTSUGAMUSHI DISEASE
test new vaccine against scrub typhus, 750
TUBE: See also Duodenal Tube; T-Tube
air embolism in blood donors; use of vacuum donor set, [Ende & Ziskind] *1483
TUBERCLE BACILLUS
alcohol also cresols effect on, [Oatway] 761—C
resistance to streptomycin, (international conference discusses, France), 194; (Italian Congress discusses) 1443
superinfection with, Norway, 1195
TUBERCULIN
Petragnani's anatuberculin for vaccination against tuberculosis, 1358
skin testing of 2,152 undergraduate students, 1280—ab
studies, Denmark, 388
test, evaluation in BCG immunization, [Anderson & Palmer] *1049
TUBERCULOMA
intracranial, streptomycin in surgical treatment, [Obrador] 1120—ab
mediastinal, [Samson] 923—ab
TUBERCULOSIS: See also Tuberculosis of Lung: under names of specific diseases and organs
case finding and private health; right of the individual, [Wassersug] 1197—C
case finding, chest survey of school children and teachers, Brazil, 390
case finding, lung lesions discovered in X-ray survey, [Clark & others] *943
case finding, mass radiography of population, Oslo, 1273
case finding surveys, U. S., 379
centers in southeast Asia, by WHO, 383
Control: See also Tuberculosis, case finding
control, Chicago, 1188
control in Switzerland, 1013
Diagnosis: See also Tuberculosis, case finding
diagnosis, use hamsters in place of guinea pigs? 1127
diagnosis, serum test for active tuberculosis, 1489—E
Hospitals: See also Tuberculosis sanatorium
hospital opened, Fla., 1266
hospital report on surgical treatment, Norway, 757
hospitals, use of cresols, [Ostway] 761—C
immunization, BCG, [Anderson & Palmer] *1048

TUBERCULOSIS—Continued
immunization, BCG, effectiveness, [Hertzberg] 850—ab
immunization, BCG, extensive mass, [Salvioli] 1374—ab
immunization, BCG, immunobiologic effect in leprosy, 1512
immunization, BCG, immunologic aspects, [Rosenthal] 1207—ab
immunization, BCG, in Israel, 1359
immunization, BCG, in Norway, 195
immunization, BCG, National Congress of phthisiology discusses, Italy, 196
immunization, BCG, new outlook, Brazil, 389
immunization, BCG, on Island of Bornholm, Denmark, 913
immunization, BCG, program, Puerto Rico, 906
immunization, BCG, should it be accepted? [Todd] 1281—ab
immunization, BCG, vaccination-allergy; superinfection-allergy in BCG-vaccinated, [Hertzberg] 870—ab
immunization, experimental with Petragnani's anatuberculin, 1358
in American Indians, A.M.A. Section on Diseases of Chest resolution on, 1161
in children declining, 908
in children, promizole for, [Lincoln] 678—ab; 845—ab
in laboratory workers, 478
in laboratory workers, protective measures in, 658—E
in new immigrants, Israel, 671
in U. S. Navy employees, 1003
in veterans, 481; 1435
incidence, decline in Illinois, 304
increase: apparent or real, 556—E
infection from birth to old age, [Beaven] 922—ab
infection in elementary schools, [Jones Davies] 929—ab
International Union Against Tuberculosis (1st), 907
morbidity, erythema nodosum as guide to, Sweden, 1444
mortality, declining rate, Denmark, 1513
National Tuberculosis Association, (officers elected) 121
reinfection endogenous, [Johnston] 836—ab
research institution, appointment to, 380
Sanatorium: See also Tuberculosis hospitals
sanatorium, Glittre, [Vaksvik] 932—ab
sanatorium, music in, Belgium, 488
sanatorium of USPHS, Manhattan Beach, Brooklyn, 1350
treatment, paraaminosalicylic acid, [Madigan] 849—ab; (report of Swedish National Ass'n) 1517—ab
treatment, para-aminosalicylic acid, in children, liver function [Baffi] 1215—ab
treatment, paraaminosalicylic acid plus streptomycin, [Anderson] 841—ab
treatment, promizole, in children [Lincoln] 845—ab
treatment, salt free diet in miliary type, Addison's diseases follows [Friedenberg] 925—ab
treatment, streptomycin, Italy, 196
treatment, streptomycin, in miliary type, 194; [Bunn] 837—ab
treatment, streptomycin-promizole, in children, [Lincoln] 678—ab; 845—ab
treatment, surgical therapy and chemotherapy, 196
Vaccine: Vaccination: See Tuberculosis, immunization
TUBERCULOSIS OF LUNG (pulmonary tuberculosis)
artificial pneumothorax in: late results from Glittre Sanatorium, [Vaksvik] 932—ab
bronchogenic carcinoma relation to, [Shefts] 1021—ab
Case Finding: See Tuberculosis, case finding
diagnosis, coughing up semihard pellets of white pearly substance, 1382
diagnosis, laboratory, [Conant] 1517—ab
in children, streptomycin for [McEnery] 318—ab; [Lorber] 1031—ab
National Congress of Phthisiology, Italy, 196
reactivation by calciferol (vitamin D_2), [Ridderbos] 1214—ab
surgical treatment, hospital report on, Norway, 757
transmission, streptomycin in posthemoptysic spreads, [Furtos] 847—ab
treatment: bed rest, collapse, streptomycin, [Armstrong] 499—ab
treatment, diet, [Sandler] 1205—ab
treatment, paraaminosalicylic acid, [Lehmann] 504—ab; [Dips] 932—ab
treatment, streptomycin [Preto] 1290—ab
treatment, streptomycin and primary lung lesion in children, [Lorber] 1031—ab
treatment, streptomycin, histopathologic changes, [Mahon] 1116—ab
treatment, streptomycin in children, [McEnery] 318—ab
treatment, streptomycin, in posthemoptysic spreads, [Furtos] 847—ab
TUBING: See Tube
d-TUBOCURARINE
chloride, slowly absorbed suspension use in traumatic injury, [Fuller] *789; (correction) 1190
TULAREMIA
immunity in, [Green] 1279—ab
in Belgium, 759
pericarditis, [Meredith] 1278—ab
research by U. of Kansas, 1105
treatment, chloramphenicol (chloromycetin), [Parker & others] *7
TUMORS: See also under names of specific organs and types of tumors
age and susceptibility to inoculation of, 816—E
Chicago Tumor Institute, (gift to) 823
Chromaffin Cells: See Pheochromocytoma
Epidermoid: See Epidermoid
Malignant; See Cancer; Sarcoma
mixed, in parotid region, removal, [Brown] 928—ab
necrotizing action of viruses, 477—E
TWINS
duodenal ulcers in, [Goodrich] 844—ab; [Ivy] 1205—ab
identical, reciprocal skin homografts to identify, [McIndoe] 685—ab
TYMPANITES: See Flatulence
TYPHOID: See also Paratyphoid
immunization, 610
immunization, tuberculous meningitis after, [Auersbach] 1216—ab
treatment, aureomycin, [Patel] 1031—ab
treatment, chloramphenicol [Benhamou] 1034—ab
treatment, chloramphenicol, cutaneous and mucosal side effects, 1193
vaccine, N.N.R., (Parke-Davis) 1486
TYPHUS
murine, studies in Rio de Janeiro, 1113
Scrub or Tropical: See Tsutsugamushi Disease
treatment, chloramphenicol and aureomycin, Italy, 1110
treatment, chloramphenicol (chloromycetin) in murine typhus, [Ley & others] *217
TYROTHRICIN, N.N.R., (Penick) 1343

U

U.M.A. Thermocouple, 971
UN: See United Nations
UNESCO: See United Nations
ULCERS: See also Abscess; Colitis, ulcerative; Peptic Ulcer; under organ or region affected at Cornea
accidental, from radioisotopes, [Patton & Millar] *554
chronic, on leg, treatment, 1220
curettement technic for biopsy, [Traenkle & Burke] *429
of legs of soldiers during World War II, 328
Tropical: See Leishmaniasis
tuberculous, of throat, 941
ULTRASONICS: See Sound waves
ULTRAVIOLET RAYS
irradiated plasma, hypocoagulability its value as anticoagulant, [Cutler & others] *1057
lamps, use of, in refrigerators to lessen food contamination or infection, 782
treatment of acne vulgaris, 780
UNDERGRADUATE Work; Students, etc.: See Education, Medical; Schools, Medical; Students; Students, Medical; University
UNDULANT FEVER: See Brucellosis
UNITARIAN SERVICE COMMITTEE
medical missions, (to Colombia) 197; (to Germany) 907
UNITED MEDICAL ADMINISTRATION
Citizens Committee for Hoover Report renewing drive for, 1264
UNITED MINE WORKERS WELFARE AND RETIREMENT FUND
medical care under, [Morrison] 1286—ab
program, 819
UNITED NATIONS: See also World Health Organization
International Refugee Organization of, certification of displaced physicians in U. S., [Burgess] *413
UNESCO, (U. S. contributions to needy countries) 665; (Council for Coordination of International Congresses of Medical Sciences) 1111
UNITED STATES: See also American; Federal; National
Air Force: See Aviation, U. S. Air Force
Armed Forces: See Armed Forces
Army: See Army, United States
Atomic Energy Commission: See Atomic Energy
Bureau of Mines: See Mines
Civil Service Commission, (created ten high-paying medical research posts) 120—OS; (interns wanted in St. Elizabeths Hospital) 562; (positions, GS-16) 662
Congress, Legislation Considered by: See Laws and Legislation
contribution to WHO, 377
contributions to needy countries, 665
Department of Commerce, response to survey of physicians incomes, 376—E
UNITED STATES—Continued
Department of Health, Education and Security (Reorganization Plan No. 27), (cabinet rank) 560; (Citizens Committee for Hoover Report oppose) 747; (Dr. Bauer's remarks on) 819; (A.M.A. resolution on) 986; (Senate hearings on) 1002; (killed) 1103
employees, A.M.A. resolution on free choice of physicians for, 983; 1088
government aid to medical education, 902
government, A.M.A. Council on Federal Medical Services, resolution on 1084; 1098
government cannot force socialized medicine on us, [Koontz] 1113—C
Government Control of Medicine: See Insurance, sickness (compulsory); Medicine, state
government credentials, licensure on, *456
government grants-in-aid, A.M.A. resolutions opposing bills on, 1083; 1096
government, increase in federal health grants, 1103
High Commissioner for Germany, German scientists in training in U. S. under, 822
Hospital Building Program: See Hospitals, building; Hospitals, veterans
Medical Academy, 1185; 1263
Mexico border public health program, 307
Pharmacopeia: See Pharmacopeia
Navy: See Navy
Public Health Service: See Health, U.S.P.H.S.
Social Security Act: See Social Security
Veterans Administration: See Veterans Administration
UNIVERSITY: See also Education, Medical; Schools, Medical; under names of specific universities
Health Service: See Students
of Buenos Aires, (new plan for medical studies), 389
of California, (television program at hospital off 257; (research fund established by surgeons) 380
of Minnesota, (seminar on hypertension) 1267
of Pennsylvania, (establishes School of Auxiliary Services) 1006
of Syria, (Dr. Wakin visiting professor at), 483
of Texas, (adds physical therapy course) 1438
of Wisconsin, (dept. of history of medicine created) 1189
Premedical Work: See under Basic Science; Education, Medical, premedical
Students: See Students
URANIUM
fluorine and, 1070—E
miners, study of hazards to, 903
UREA
renal clearances in late toxemias of pregnancy, [Chesley] 1516—ab
UREIDE of Mesoxalic Acid: See Alloxan
URETHRA
Inflammation: See Urethritis
stricture 859
Transurethral Resection: See Prostatectomy
URETHRITIS
Gonococcic: See Gonorrhea
nonspecific, arthritis due to, 1038
nonspecific, chloramphenicol (chloromycetin) in, [Chen] 772—ab
URIC ACID
renal clearances in late toxemias of pregnancy [Chesley] 1516—ab
URINARY SYSTEM: See also Bladder; Genitourinary System; Kidneys; Ureters; Urethra
infections, chloramphenicol for, [Garvey] 683—ab
infections during pregnancy, aureomycin for [Guilbeau & others] *523
infections, terramycin for, [King & others] *1
URINE: See also Sewage
alkalizing, use of disodium phosphate, 1128
Blood in: See Hematuria
Hemoglobin in: See Hemoglobinuria; Methemoglobinemia
incontinence after transurethral resection, 1221
incontinence, cryptorchism and enuresis, 941
17-ketosteroids and corticosteroids excretion in rheumatoid arthritis [Polley & Mason] *1480
mercury in, 1533
Porphyrin in: See Porphyria
porphyrin test for lead absorption in industry, 940
Protein in: See Albuminuria
Red: See Hemoglobinuria
rutin excreted in, (Council report), [Slark & MacKay] *1411
Sugar: See Diabetes Mellitus
suppression, anuria after radiation therapy in leukemia, [Lear & Oppenheimer] *806
suppression (anuria), studies on exchange transfusion, France, 194
suppression, anuria in lower nephron nephrosis, intragastric drip in, [Baden] 1375
suppression, obstruction after transurethral prostatectomy, 1533
suppression, sulfonamide anuria [Oram] 1375—ab

UROGRAPHY: See Pyelography
URTICARIA
agranulocytosis from tripelennamine, [Hilker] *741
chronic, 149
Giant: See Edema, angioneurotic
pathogenesis: stress, emotions, skin vascular reactions, [Graham & Wolf] *1396
UTERUS
Adnexa: See Oviducts
bacteria on, after labor, effect of aureomycin, [Gilbeau & others] *520
Cancer: See also Endometrium cancer
cancer, beta-glucuronidase studies, [Fishman & others] *350
cancer (cervical), early diagnosis, Belgium, 830
cancer (cervical early), treatment [Corscaden] 677—ab
cancer (cervical), radical hysterectomy in, [Donnelly] 495—ab
cancer (cervical), smegma as carcinogenic agent, [Bleich] *1054
cancer (cervical subclinical) curettage in diagnosis, [Pund & Echols] *1226
cancer (cervical), survey of results at U. of Iowa Hospitals, [Randall] 677—ab
cancer, development of vaginal cytology laboratory, [Gusberg] 1516—ab
cancer, diagnosis with absorbable gelatin sponge, [Rich] 1516—ab
cancer, "false positive" vaginal smears, [Graham] 684—ab
cancer in gynecologic patients, Brazil, 390
cancer (recurrent cervical), resect bladder, rectum and vagina for, [Boyd] 767—ab
cancer, bladder necrosis after treatment with x-rays and radium, 694
cervix, endometriosis simulating carcinoma, [McGuff] 1283—ab
cervix, red patches on, 216
congestive heart failure in utero, [Reader] 682—ab
Excision: See Uterus cancer
hemorrhage following onset of menopause, 407
Hemorrhage (functional): See Menstruation
infantile, associated with vaginismus, 1534
intrauterine pastes, criminal abortions induced by, [Dutra & others] *865
Mucosa: See Endometrium
roentgen study, endometriosis from hysterosalpingography, [Teilum] 1289—ab

V

VACATIONS
health and, [Owen] 1280—ab
VACCINATION: See Immunization; Smallpox
VACCINE: See also under specific diseases
bacterial, treatment of asthma, general reactions, [Flensborg] 1375—ab
BCG: See Tuberculosis immunization
lymph purification by penicillin, [Rao] 848—ab
prevention of brucellosis, 610
test new vaccine against scrub typhus, 750
treatment in multiple sclerosis, [Schumacher] *1246
VACUUM donor set, air embolism in blood donors, [Ende & Ziskind] *1483
VAGINA
discharge, cause of in girls 6 and 8, 1533
fluid, beta-glucuronidase studies in, [Fishman & others] *350
foreign bodies, vulvovaginitis due to; treatment, (reply), [Rosenberg] 696
hemorrhage (painless) during pregnency and Rh factor, 1381
smears, vaginal cytology laboratory, [Gusberg] 1516—ab
smears, "false positive," [Graham] 684—ab
speculum, self-retaining, [Gilbert] *893
surgery, resection for recurrent cancer of cervix, [Boyd] 767—ab
VAGINISMUS associated with infantile uterus, 1534
VAGOTOMY: See Nerves, vagotomy
VALLEY FEVER: See Coccidioidomycosis
VAN CAMP Sea Food Co. products, 24
VAPORIZER, DeVilbiss Steam, No. 149, 1487
VARICELLA: See Chickenpox
VARICOCELE
treatment, tunnelization, 1196
VARICOSE VEINS
esophageal, packing of mediastinum for, [Garlock] 1208—ab
esophageal, portal systemic venous shunts for, [Linton] 135—ab
treatment, Astar'te Two-Way Stretch Elastic Stocking for, 971
ulcers, chronic ulcers on leg, 1220
VARIOLA: See Smallpox
VASCULAR Disease: See Blood Vessels
VASECTOMY
intercourse after vasectomy, 860
VASOMOTOR MECHANISM
blanching and numbness of fingers, 1040
coronary vasodilation after section of preaortic plexus, [Arnulf] 1526—ab
VATER'S AMPULLA: See Ampulla of Vater
VEGETABLES: See also under names of specific vegetables
Beach-Nut Strained Garden Vegetables, 1415
VEGETABLES—Continued
Clapp's Strained Foods, 970; 1486
proteins vs. animal proteins, amino acid composition, [Howe] *1338
thawed frozen, reaction from eating, 942
VEGETATIVE Nervous System: See Nervous System, Sympathetic
Neurosis: See Erythredema
VEINS: See also Blood Vessels
Caval: See Vena Cava
Inflammation: See Phlebitis; Thrombophlebitis
Injection into: See Injections, intravenous
International Days of Phlebology, 1272
jugular, transfusions into, [Seidler] 932—ab
Portal: See Portal Vein
retinal, phleboretinopathia tarda in juvenile diabetes, [Jensen] 1216—ab
surgery, end to end arteriovenous anastomosis, [Leger] 687—ab
Thrombosis: See Thrombophlebitis; Thrombosis, venous
Varicose: See Varicose Veins
VENA CAVA
perforation into, with aneurysm of abdominal aorta, [Dussaillant] 322—ab
treatment of portal hypertension with shunt operations, [Wilson] 849—ab
VENEREAL DISEASE: See also Gonorrhea, Lymphogranuloma, Venereal; Syphilis
case load, 748
control programs, state to expand, Mich., 1437
in Denmark, 1900-1948, 1015
in Norwegian troops in Germany, 195
treatment, rapid treatment center to close, Mich., 752
VENESECTION
in blood bank work, hypodermic syringe to induce anesthesia, [Wolf & others] *431
VENTRICULAR FIBRILLATION
precipitated by cardiac catheterization, [Southworth & others] *717
VENTRICULAR TACHYCARDIA: See Tachycardia
VENZOATE (Veltex) N.N.R., 815
VERATRUM VIRIDE
treatment of essential hypertension, [Wilkins] 1282—ab
treatment of hypertension, significance of "Craw" unit, 1221
treatment of hypertensive vascular disease, [Coe & others] *5
VERNIX CASEOSA, 328
VERTAVIS: See Veratrum viride
VERTEBRAE: See Spine
VERTIGO
aural, Ménière's syndrome and vitamin deficiency, [Atkinson] 679—ab
treatment for, in cerebral arteriosclerosis, 511
VESICULITIS: See Seminal Vesiculitis
VETERANS
A. M. A. Committee on Veterans Affairs, 120; 1099; 1100
amebiasis in, [Conn] 1028—ab; [Mackie] 1284—ab
Hospitals: See Hospitals, veterans
Medical Care: See also Hospitals, veterans
medical care, [Kracke] *1321
medical care, A.M.A. Correlating Committee on, 989
medical care, A.M.A. resolutions on, 1076; 1084; 1088; 1100; 1101
medical care of veterans with non-service-connected disabilities, A.M.A. resolution on, 1099; 1100; 1101
medical care under optometrist allowable, 1185
number of: 19 million, 661
tropical diseases in, [Mackie] 682—ab
tuberculosis in, 481; 1435
VETERANS ADMINISTRATION
economy cuts, 377
"Grass Root" representatives, 751
history, [Kracke] *1321
Hospitals under Control of: See Hospitals, veterans
medical director: Dr. T. M. Arnett, 188
staff, 185
VIBRATION
effect of pneumatic hammers on fingers, 514
VIOFORM
treatment of amebiasis, 781
VIOLINIST
allergy to rosin in, 1222
VIRILIUM
tube of Erickson and Nelson; "Magic Spike" gets spiked, 571—BI
VIRUS: See also Influenza; Poliomyelitis; Rabies
Coxsackie disease, 972—E; 1004
definition, 1048—ab
generalized cytomegalic inclusion disease, [Wyatt] 843—ab
Hepatitis: See Liver inflammation
laboratory diagnosis, [Milzer] *219
neuronitis during pregnancy, 942
oncolytic, 477—E
Pneumonia: See Pneumonia, atypical
variation, 412—ab
VISAMMIN (khellin)
clinical use, [Rosenman & others] *160
treatment of angina of effort, [Dewar] 773—ab
VISION: See also Eyes
difficulties and multiple vitamins and kelp, 1297
hemianopsia due to brain hemorrhage, 216
Loss of: See Blindness
testing instrument, Sight-Screener, Model 1235, 440
VISO-CARDIETTE, Sanborn, Model 51, 1487
VISUAL EDUCATION: See Moving Pictures
VISUAL PURPLE
synthesis, 559—E
VITAL CAPACITY
determination, 1457
in pregnancy following pneumonectomy, [Long & others] *358
VITAL STATISTICS
birth rate, atom bomb effect in Japan, 1296
birth rate high, Netherlands, 129
Death Certificate: See Death Certificate
Death Rate: See also Automobile accidents; Death, cause of; Maternity mortality; under names of specific diseases
death rate, first quarter rates low, 485
public health statistics, [Hall] 833—ab
VITAMINS
deficiencies and Ménière's syndrome, [Atkinson] 679—ab
effect on culture of fungi, [von Mallinckrodt-Haupt] 322—ab
in foods of animal origin, [Howe] *1340
multiple, visual difficulties from, 1297
National Vitamin Foundation grants, 825
therapy given by vein, 782
therapy in multiple sclerosis, [Schumacher] *1245
VITAMINS A, [Butt *236
chronic poisoning in infants and children, [Caffey] 1283—ab
hypervitaminosis A, 1417—E
oxidation of, synthesis of visual purple, 559—E
treatment, large doses harmful?, 609
VITAMINS B COMPLEX; See also Acid, folic; Pellagra
enriched rice and beriberi mortality in Batan, [Salcedo] 600—ab
therapy in nutritional melalgia (burning feet), [Vernon] *799
B_1: See Acid, nicotinic; Thiamine Hydrochloride
B_{12} and liver extracts in degeneration of cord, [Ungley] 399—ab
B_{12}, bacterial synthesis in alimentary tract, [Dyke] 1212—ab
B_{12} concentrate, sensivity to, [Young & others] *893
B_{12} effect on pernicious anemia, [Mueller] 845—ab
B_{12} in megaloblastic anemia, [Woodruff] 141—ab
B_{12}, natural sources, [Lewis] 205
B_{12}, N.N.R., (description) 1342; (Merck) 1342; (Abbott) 1486
B_{12}, treatment of multiple sclerosis, [Schumacher] *1246; 1272
B_{12} treatment of pernicious anemia, [Kinnear] 1288—ab
B_{12}b, hemopoietic response to, [Spies] 206—ab
VITAMIN C: See also Acid, ascorbic
treatment plus deoxycortone in rheumatoid arthritis, [Kersley; Currie] 1372—ab
VITAMINS D: See also Cod Liver Oil; Rickets
addition to milk, Sweden, 1444
calcium deficiency in relation to, [Youmans] *1254
hypervitaminosis, [Jeans] *181
intoxication in adults, [Jamar] 1290—ab
D_2 (calciferol) reactivates pulmonary tuberculosis, [Ridderbos] 1214—ab
VITAMIN E, [Butt] *239
treatment of hemolytic disease of newborn, [ten Berge] 1374—ab
treatment of multiple sclerosis, [Schumacher] *1246
VITAMIN K, [Butt] *240
dicumarol and, [Miller] 771—ab
treatment of thromboembolic complications of myocardial infarction, [Schilling] *785
VITILIGO, 942
VIVISECTION: See Animal Experimentation
VOCABULARY: See Terminology
VOCATIONAL Rehabilitation: See Rehabilitation
VOICE: See Speech
VOLHARD, FRANZ, death, 825
VOMITING: See also Motion Sickness
in Pregnancy: See Pregnancy
of Blood: See Hematemesis
symptom of myocardium infarction, [Adams] 840—ab
VOTING
by ballot, A.M.A. resolution on, 1079; 1087
VULVA
red patches on, 216
VULVOVAGINITIS
etiology; oxyuriasis and foreign bodies in vagina; treatment, (reply) [Rosenberg] 696

W

W.H.O.: See World Health Organization
WADSWORTH LECTURE: See Lectures
WAGES: See Income
  Tax on: See Tax, Income
WALKING
  intermittent claudication treated by walking more slowly, [Naide] *968
  on hard floors and fatigue, 693
WALTON Oxygen Tent Humidifier, 971
WAR: See also Korean War; Military Medicine; World War II
  burn problem in atomic warfare, [Evans] *1143
  Conventions of Geneva, 1014
  Heroes: See Korean War; World War II
  injuries, 1158—E
  Prisoners: See World War II
  protection against the A-B-C- War, 1013
  Veterans: See Veterans
WASHINGTON
  News: See American Medical Association Journal
  Office: See American Medical Association
WASPS
  sting, severe anaphylactic reaction to 1038; [Paul] 1451—ab
WASSERMANN TEST
  false positive, 1457
  fastness, 857
  nonspecific positive, during menstruation, [Wildführ] 687—ab
WATER: See also Baths; Steam; Swimming
  metabolism, fluid therapy, [Darrow & Pratt] *365; *432
  Mineral: See Health resorts
  Pollution: See also Sewage
  pollution, conference on, by U.S.P.H.S., 562
  retention and diet in relation to body weight, 1381
  well waters and methemoglobinemia in infants, 476—E
WEBSTER, WILLIAM
  new chairman of Research and Development Board, 188
WEIGHT: See Body weight; Obesity
WEIL'S DISEASE: See Leptospirosis
WELTMANN Reaction: See Blood coagulation
WERLHOF'S Disease: See Purpura, thrombopenic
WHEAT germ, Kretschmer's, 1486
WHISKY
  treatment of angina pectoris, [Russek & others] *355; [Edwards] 1514—C
WHITAKER and Baxter: See American Medical Association, National Education Program
"WHITE PAPER": See National Health Service, England
WHITE HOUSE CONFERENCE ON CHILDREN AND YOUTH, [Helmholz] *625
WHITMAN, MARCUS
  statue in Capitol, Washington, 190
WHOOPING COUGH
  immunization, [Gray] 321—ab
  immunization (combined), use of procaine in, 696
  immunization, combined with diphtheria, encephalopathy after, [Anderson] 1212—ab
WHOOPING COUGH—Continued
  immunization combined with diphtheria and tetanus, abscess after, 1222
  treatment, aureomycin, [Chang] 1207—ab
  treatment, chloramphenicol [Macrae] 1031—ab; [Payne] 1452—ab
  treatment (symptomatic) tripelennamine, [Helman] 143—ab
  treatment, terramycin, [King & others] *1
  vaccine aluminium hydroxide adsorbed, N.N.R., (description) 813; (Cutter) 813
  vaccine combined with diphtheria and tetanus toxoids, aluminum hydroxide adsorbed, N.N.R., (description) 813; (Cutter) 813
  vaccine combined with diphtheria toxoid, aluminum hydroxide adsorbed, N.N.R., (description) 813; (Cutter) 813
  vaccine combined with diphtheria toxoid (diptussis), N.N.R., (Cutter) 813
  vaccine, reaction after, 941
WILES, PHILIP, B.M.A. official representative at A.M.A. Session, 987
WINTERSTEIN, HANS, retired, 1112
WIRELESS: See Radio; Television
WISCONSIN
  Medical Journal: See Journals
  University of: See University
WOMAN'S AUXILIARY
  Bulletin cancelled, 984; 1088
  program at San Francisco session, 252
  scholarship to school of nursing, Delaware, 1004
WOMAN'S MEDICAL COLLEGE, 824
WOMEN: See Marriage; Maternity; Pregnancy in Medicine: See Nurses; Physicians, women
WOOD, LEONARD
  memorial, new registry of leprosy, 1105
WOOD
  Alcohol: See Methyl Alcohol
  dust as cause of asthma, [Ordman] 399—ab
WOODWARD, W. C.
  gift of medicolegal books, 749—OS
WORDS AND PHRASES: See Terminology
WORINGER-PAUTRIER Syndrome, [Agress & Fishman] *957
WORK: See also Industrial Health; Industrial Hygiene; Occupational Therapy
  capacity (unilateral), influence of bimanual exercise on, 559—E
  spasmophilia, Paris, 569
WORKMEN'S COMPENSATION ACTS: See also Medicolegal Abstracts at end of letter M
  A.M.A. resolutions on medical relations in, 1080; 1095
WORLD CONGRESS
  of Cardiology, (1st), 1272
WORLD FEDERATION
  for Mental Health, 3rd meeting, 1272
WORLD HEALTH ASSEMBLY
  study spread of cholera via pilgrimages, 666
  WHO executive board members, 907
WORLD HEALTH ORGANIZATION
  Committee differentiates between drug addiction and drug habituation, 973—E
  Committee on Hospital Statistics, 383
  Committee on Unification of Pharmacopoeias, 665
WORLD HEALTH ORGANIZATION—Continued
  Council for Coordination of International Congresses of Medical Sciences, 1111
  Czechoslovakia withdraws from
  Expert Committee on Health Statistics, urge improvement in cancer statistics, 665
  international serodiagnostic conference, 565
  leprosy control, Paris, 569
  malaria control activities of, 1345—E
  medical training centers in Europe, 666
  tuberculosis centers in southeast Asia, 383
  U. S. contribution to, 377
  yellow fever zone boundaries drawn up by, 1438
WORLD LEAGUE: See United Nations
WORLD MEDICAL ASSOCIATION
  account of meeting, April 24-28, 1950, 561
  A. M. A. representatives appointed to, 749
  A. M. A. resolution on endorsement, 1082; 1092
WORLD WAR II (1939-1945)
  atomic bomb effect on birth rate, 1296
  postwar conditions, effect on medical education in Great Britain, [Diehl & others] *1494
  prisoners, nutritional melalgia (burning feet) in, [Vernon] *799
  survivors of bombing of Hiroshima three years later, [Novy] 838—ab
  ulcer and dermatitis of legs in soldiers, 328
  Veterans: See Veterans
WORLD WAR II, HEROES
  Shaw (C. C.), Certificate of Merit and Selective Service Medal, 1435
  Thyson (L. C.), Distinguished Service Award, 1003
WOUNDED, Transport of: See Ambulance
WOUNDS: See also Trauma
  gunshot, war injuries from missiles, 1158—E
  treatment (primary), penicillin in, [Holle] 1034—ab
WRIST
  nerve compression and paresthesias, Brazel, 489

X

X-RAYS: See Roentgen Rays

Y

YALE UNIVERSITY
  Laboratory for Cancer Research, 1105
  microbiology activities coordinated, 482
YELLOW FEVER
  laboratory tests in, [Milzer] *219
  zones, new boundaries drawn up by W.H.O., 1438
YOUTH: See Adolescence

Z

ZENITH Miniature 75 Hearing Aid, 440
ZINCUNDESAL
  N.N.R., (description) 1157; (Fallace & Tiernan), 1157
ZONING Regulations: See Medicolegal Abstracts at end of letter M
ZOSTER: See Herpes zoster

AUTHOR INDEX

In this Index are the names of the authors of articles which have appeared in THE JOURNAL, the names of those who have read papers before Societies as published in THE JOURNAL and those whose articles have been abstracted in the Current Medical Literature Department. The * preceding the page reference indicates that the article appeared in full in THE JOURNAL.

For subject index see page 1537.

A

Aagaard, K., 1375
Adams, D. M., 198
Adams, F. M., 840
Adams, W. S., 391
Adamson, D. L., 918
Agreas, C. M., *957
Aidar, O., 1290
Albright, E. C., *1129
Aldridge, W. N., 848
d'Allaines, F., 1214
Allen, J. G., 593
Allen, K. D. A., *943
Almkiov, J. R., 926
Alonso de Olarte, L., 850
Alper, C., 598
Alpert, L. K., 1021
Amberson, J. B., 204, 1116
Amelar, R. D., 761
Andersen, A. H., 1375
Anderson, A., 139
Anderson, D., 1026
Anderson, D. G., 317
Anderson, I. M., 1212
Anderson, R. E., 317
Anderson, R. J., *1048
Anderson, R. L., 599
Anderson, W., 841
Andersson, B., 1291
Andrews, G. S., 602
Andrus, W. DeW., 502, 921
Anglesio, E., 1374
Angrist, A., 134, 1516
Anning, S. T., 1288
Antoni, N., 603
Appelbaum, E., *538, *715
Aranow, H., Jr., *1139
Arbesman, C. E., 198
Archer, B. H., 570
Arkin, A. M., 1519, 1519
Armbrust, C. A., Jr., 202
Armstrong, B. W., 499
Armstrong, G. E., *18
Arnulf, G., 1454, 1526
Arriagada, A., 848
Askey, J. M., 1448
Atkinson, M., 679
Atkinson, W. J., Jr., 1019
Auersbach, K., 1216
Auersperg, A., 1290
Aufses, A., *552
Aurousseau, R., 1033
Austin, G. M., 917, 1520
Avery, E. E., 139
Axen, O., *540

B

Baden, H., 1375
Baehr, G., *637, 1118
Baffi, V., 1215
Bahnson, E. R., *1044
Bahnson, H. T., 502
Bailey, C. P., 397, 841, 1206
Baker, L. A., 498
Baldwin, J. S., 1118
Ballard, G. P., 498
Bamba, M. D., 600
Banker, D. D., 1031
Barnes, G. R., Jr., 316
Barnes, J. M., 848
Barness, L. A., 927
Barnet, G. S., *22
Barnett, L. A., *1335
deBarros, S. A., 1290
Bass, H. E., *1041
de Bastiani, G., 1032
Batchelor, T. M., *21
Bauer, G., 766, 1277
Bauer, R. E., *7
Bauer, W., 204
Baum, W. C., *1317
Baur, H., 1034
Bayer, J., 688
Beal, G. A., *1473
Beal, J. M., 594
Beattie, A. D., 1212
Beaven, P. W., 922
Beaver, D. C., 918
Beck, J. C., 1518
Bedli-Gorbon, 1214
Beigelman, P. M., 925
Beilion, B., 1374
Bellis, C. J., 1449
Belnap, H. K., 1452
Benedict, E. B., 1366
Benenson, A. S., *1238
Bengloff, H., 137
Benhamou, E., 1034
Bercel, N. A., *1460
ten Berge, B. S., 1374
Berger, K., 210
von Bergmann, I., 1216
Berman, I. L., 1451
Berson, S. A., *338
Berthrong, M., 1024
Bertrand, I., 1033
Best, M. M., *5
Bibby, D. E., 1369
Bietti, G. B., 839
Binet, L., 851
Bing, F. C., 766
Biscaye, A., 1291
Bjerver, K., 927
Black, J., 1026
Blair, V. P., 846
Bleich, A. R., *1054
Blinder, H., 682
Block, M., *1390
Blodgett, W. A., *878
Blodi, F. C., 676
Blumenthal, L. S., *1462
Blumgart, H. L., 1451
Bode, E., 1373
Bodian, M., *15, 321
Boenjamin, R., 1121
Böök, J. A., *730
Boersma, V. L., 1202
Bolton, H., 142
Bolus, M., 1029
Bonnette, J., 774
Borden, C. W., 1282
Bordes, L. A., 1215
Bordes-Valls, M., 136
Borg, J. F., 1450
Botsztejn, C., 209
du Bouchet, N., 1214
Bowden, K., 1031
Bower, A. G., 1020
Bowman, K. M., 677
Boyce, W. H., 1521
Boyd, W. H., 767
Boyer, W. F., 844
Boyle, H. H., 676
Bradford, F. K., 595
Bradford, G. T., 496
Brage, D., 688
Braham, S., 204, 1116
Brainerd, H., 1363
Brandt, M. B., 593
Brandt, R., 843
Brandt, W. L., 683
Brandwijk, A. C., 505
Bredmose, G. V., 144
Brent, F., 1364
Brentan, E., 928
Brewer, L. A., III, 770
Brink, W. R., *151
Brodsky, M., 851
Brolsma, M. P., 680
Brooke, B. N., 207
Brotman, E. J., *721
Brown, C. H., 1367
Brown, H. A., *1223
Brown, J. B., 928
Brown, T. M., 1363
Browne, J. S. L., 1518
Brügger, Y., 604
Brunel, D., 851
Brunn, F., 1513
Bruyn, H. B., 1363
Bryans, C. L., Jr., 200
Bryfogle, J., *1333
Bryner, U. R., *1420
Buch, J., 1370
Buckles, M. G., *344
Bucy, P. C., 500
Bull, J. W. D., 1287
Bunim, J. J., 1118
Bunn, P. A., 837
Burbank, B., *1057
Burford, T. H., 140
Burgess, A. M., *413
Burke, E. M., *429
Burke, F. G., *1459
Burkell, C. C., 498
Burn, R. A., 503
Burstein, J., 682
Burwell, W. B., 1448
Busard, J. M., 1117
Butt, H. R., *236
Butzner, W. W., Jr., 1369
Byrne, E. T., 600

C

Caffey, J., 1283
Cajori, F. A., 1027
Caldwell, J. B., 495
Caldwell, W. G., 684
Calkins, E., 596
Callahan, E. J., III, 1519
Callaway, J. L., *1331
Cameron, W. R., *228
Campanacci, D., 400
Campbell, A. C. P., 320
Campbell, A. M. G., 774
Campbell, R. M., 1209
Capretti, G., 209
Caputo, V., 1215
Carle, B. N., *1470
Carli, G., 1291
Carlisle, J. M., 831
Carpenter, F., 1516
Carr, D. T., *1223
Carrasco, E. O., 600
Carroll, I. N., 1024
Carrozzino, O. M., 1115
Carson, D. A., 198
Carson, M. J., 140
Carter, J. B., *542, *644
Carter, R. F., *951
Cassebaum, W. H., *963
Castellanos, A., 1277
Catalano-Nobili, C., 210
Cattell, R. B., 502
Caughey, J. E., 1370
Cecil, R. L., *338
Cerbonnet, G., 1033
Chabbert, Y., 1215
Chaiken, B. H., 1446
Chalkoff, I. L., 1116
Chandler, F. A., 1519
Chandler, L. R., *1492
Chang, S. M., 1207
Chapman, S., 134
Chapman, W. P., *627
Chaptal, J., 851
Chapuis, R., 144
Charters, A. D., 1372
Cheek, D. B., 1212
Chen, C. H., *724, 772
Chen, S. C., 768
Cherry, C. B., 1448
Chesley, L. C., 1516
Chiriboga, J., 1454
Chow, B. F., 598
Christophe, K., 317
Chute, A. L., *154
Clair, N. E., 1115
Clark, A. M., 1120
Clark, D., *943
Clark, E. A., Jr., *1
Clark, W. G., *1411
Claugus, C. E., 772
Clerf, L. H., *169, 593
Cleveland, A. S., *11
Cleveland, F. P., *865
Cline, W. A., 683
Coates, E. O., Jr., *1044
Coe, W. S., *5
Coffin, C. J., *878
Coker, C., 837
Colbeck, J. C., 318
Colcock, B. P., 1365
Coley, B. L., 1519
Collins, E. N., 140
Collins, H. S., 592, 592
Collins, V. P., 495
Colmore, J. P., 499
Colp, R., 678, 842
Colvin, E. M., 1369
Combes, F. C., 205
Comroe, J. H., Jr., *1044
Conan, N., Jr., *792
Conant, N. F., 1517
Conley, J. E., 134
Conn, H. C., 1028
Conte, A. J., *346
Converse, J. M., 1209
Coodley, E. L., *721
Cook, C. B., 1369
Cooper, W. A., *1308
Copello, O., 505
Cornely, P. B., *1
Correll, H. L., *888, 917
Corscaden, J. A., 677
Cosand, H. C., *157
Cosgriff, S. W., *870
Covner, A. H., 397
Cowan, D. W., *421
Craig, R. M., 919
Craig, W. M., 501
Crain, D. C., 1518
Crawford, L. V., *797
Creaturo, N. E., *234
Crede, R. H., *617
Creech, O., 772
Crenshaw, G. L., 1205
Crewe, W., 601
Crigler, J. F., Jr., *532
Crile, G., Jr., 140
Croxatto, O. C., 1454
Cruickshank, C. N. D., 773
Crumbley, J. J., Jr., *726
Crumrine, J. L., 139
Currie, J. P., 1372
Custer, E. A., *151
Cutler, S. S., *1057

D

Dahl, S., 1525
Dailey, M. E., 677
Dana, G. W., 596
Dane, P. G., 208
Daniels, T. C., 139
Danis, A., 1373
Danopoulos, E., 322
Darby, W. J., 141
Dargeon, H. W., 1118
Darrow, D. C., *365, *432
Dausset, J., 767
Davidsohn, I., 1360
Davis, H., 136
Davison, A. R., 203
Davison, C., 597
Davison, R., 767
Davison, W. C., *1232
Day, L. A., 1279
Day, R., 843
DeBakey, M., 847
DeBlase, S., 598
DeCamp, P. T., 847
Dehlinger, K., 1523
Deitz, E. N., *157
DeJong, R., 923
Del Duca, V., 1118
de Maeyer, E., 208
DeMay, G. H., 836
Demoures, C., 1215
Dempsey, W. S., 140
Denny, F. W., *151
Denz, F. A., 848
deTakats, G., 766
Destaing, F., 1034
Deutsch, D. L., *348
De Vries, J. A., 500
Dewar, H. A., 773
Dickinson, F. G., *1198, *1274
Diehl, H. S., *421, *1492
Dienst, R. B., *724, 772
Difs, H., 932
Dillon, H., 1364
Dimmling, T., 1034
Dimond, E. G., *1311
Dineen, P., 594
Djordjevic, B. S., 774
Dolgoff, S., 498
Doll, R., 1370
Dolley, F. S., 770
Donahue, H. C., 316
Donnelly, J. F., 495
Donohue, W. L., *154
Dooley, J., *884
Dorst, S. E., *1492
Doscher, N., 1447
Dotter, C. T., 502, 917, 1284
Douglas, B. H., 836
Dowling, H. F., 681
Dragstedt, L. R., 1286
Drake, M., 1522
Drake, T. G. H., 1281
Drorbaugh, J. E., 499
Drouet, P. L., 1122
Drusinsky, F., 1120
Duarte, E., 143
Dublin, L. I., *1464
Dudley, H. A. F., 399
Duff, I. F., 1278
Dugal, L. P., 318
Dugan, D. J., 923
Dumont, A., 504
Dunavant, D., *1067
Duret, R. L., 1290
Durry, D. R., 683
Dussaillant, G., 322
Dutra, F. R., *865, 1021
Dyke, W. J. C., 1212

E

Eads, R. B., 593
Ebert, R. V., 1282
Echols, J. M., *1226
Edgar, A. L., 1204
Edström, G., 1033
Edwards, E. A., 1514
Edwards, F. R., 321
Egner, W., 593
Eigelsbach, H. T., 1279
Elsele, C. W., *1473
Eldredge, D. H., 136
Ellinger, A. J., 396
Ellis, L. B., 397
Elvehjem, C. A., 205
Ende, N., *1483
Engel, E. F., *891
Enquist, I., 920
Erbes, J., 134
Erickson, P. T., 846
Ernest, E. P., 1451
Ervin, D. M., 497
Escamilla, R. F., 1025
Etchebarne, A., 322
Etienne-Martin, P., 1526
Etteldorf, J. N., *797
Ettleson, A., 201
von Euler, U. S., 143
Evans, B. H., 770
Evans, E., *954
Evans, E. I., *1143
Everberg, G., 851
Eversole, J. W., 1118
Evoy, M. H., 766
Ewing, M. R., 503
Exner, F. B., 1514
Exposito, L., 144
Eyband, M., 1034

F

Fabre, J., 604
Fahrni, W. H., 1211
Faivre, G., 1122
Farinaud, M. E., 1215
Farrier, R. M., *965
Fawcett, B., 1285
Feitelberg, S., 768
Felder, L., *361
Felder, S. L., *361
Feldman, F., 918
Feldman, P. H., 1028
Fellinger, K., 688
Felsen, J., *1135
Felsenfeld, O., *794
Feng, T. H., 1213
Ferguson, J. H., 1208
deFeria, A., 144
Feroldi, J., 931
Ferrero, R. G. A., 1291
Ferris, B. G., Jr., *1383
Feuerlicht, N., *23
Fewell, R. A., *891
Fiese, M. J., 1203
Filler, W., *1235
Finch, C. A., 771, 771
Fineberg, J. C., 1020
Finesilver, B., *1460
Finkle, R. D., 1203
Finland, M., 592, 592, 1207, 1364
Fisher, E. G., *532
Fishman, A. P., *160
Fishman, H. C., *957
Fishman, W. H., *350
Fitz-Hugh, G. S., 1281
Fleming, D. S., 681
Flensborg, E. W., 1375
1375
Fletcher, A. G., Jr., 684
Fleury, J., 1451
Flindt-Hansen, E., 1375
Flood, F. T., 1205
Flordh, P., 1033
Florey, H. W., 848
Flothow, M. W., Jr., 682
Fog, M., 1122
Forsham, P. H., 1025
Foussier, B., 932
Fouts, P. J., *893
Fowler, P. J., 142
Fox, M. J., *535
Frack, H., 1360

Franceschetti, A., 685
Frank, S. L., *430
Frant, R., 1278
Frantz, C. H., *424
Fraser, D. T., 761
Frazier, C. A., *1065
Freed, S. C., *526
Freedberg, A. S., 1451
Freeman, N. E., 1285, 1517
Fremont, R. E., *1652
Freundlich, M., *431
Freyberg, R. H., *418
Freygang, F., 400
Friderichsen, C., 505
Friedenberg, S., 925
Friedman, C. E., 1019
Fries, B., 931
Fry, K. E., *169
Fryd, C. H., 1525
Frye, J. W., 134
Fryer, M. P., 928
Fuchs, M., *1462
Fuller, J. D., *789; (correction) 1190
Fuqua, P. A., 135
Furmanski, A. R., 839
Furtos, N. C., 847
Fust, J. A., 844

G

Gabrielson, L. G., 767
Gaensler, E. A., 1030
Gail, E. A., 680
Gammon, G. D., 1364
Ganey, J. B., 317
Gardner, C. E., Jr., 1285
Gardner, F. E., 135
Garland, H. G., 1288
Garland, L. H., 680
Garlock, J. H., 398, 1208
Garner, R. O., 772
Garrett, S. S., 1452
Garvey, F. K., 783
Gautier, P., 1122
Geddes, D., 1115
Gennerich, W., 686
Gerbrandy, J., 505
Gerhardt, P. R., *336
Gersh, E., 682
Gerty, F. J., *613
Gerver, J. M., 843
Gibson, C. D., Jr., *1303
Gibson, P. C., 207
Gibson, T., 1524
Gilbert, T. C., *893
Gildea, E. F., *960
Giles, A. M., 686
Gilfillan, R. S., 1285
Gill, D. G., 846
Gillette, L., *951
Gilmour, D., 1524
Gilroy, J. C., 322
Gimbel, N. S., 684
Ginsberg, V., 918
deGlopert, L., 688
Gitelson, S., 1525
Givner, I., 768
Gladstone, A. A., *894
Glaser, G. H., *620
Gleckler, W. J., 1367
Gleich, M. M., *635
Glenn, H. B., 1280
Glover, R. P., 397, 841, 1206
Glücksmann, A., 848
Gocke, T. M., 592, 592, 1364
Godtfredsen, E., 207
Gogela, L. J., 501
Goldberg, L., 927
Goldenberg, M., *1139
Goldstein, H., *336
Gonzales, W. F., 683
Goodhill, V., 770
Goodman, R. D., 682
Goodrich, J. P., 844
Goorwitch, J., 201
Gordan, G. S., 1025
Gordon, B., 1025
Gordon, E. S., *1129
Gordon, G. L., 769
Gordon, R. M., 601
Gore, I., 1116
Grace, A. W., 205
Grace, E. J., 1446
Grace, W. J., 202
Graham, D. A., 1516
Graham, D. T., *1396
Graham, E. A., *329
Graham, R. M., 684
Granick, S., 922
Grant, F. C., 917, 1520
Grant, L. J., 1212
Gray, D. F., 321
Gray, J. D., 602
Greaves, A. B., *4
Green, R. S., 496
Green, T. W., 1279
Greenberg, L., 681
Greenberg, M., 1368
Greenblatt, R. B., *724
Greenspan, E. M., 1021
Gregory, P. O., 844
Greiland, R., 603
Griffin, D. W., 772
Griffith, P. C., 1024
Griffiths, L. L., 849
Grimson, K. S., *873, *1331
Grimson, T. A., 773
Griswold, D., 315
Griswold, H. E., Jr., 141
Groen, J., 1278
Gross, R. E., 202
Grossman, E. B., *792
Grossman, M. I., 391
Grundler, E., 504
Grunert, H., 1526
Guck, J. K., *742
Gueft, B., 1366
Guest, C. M., *338
Guilbeau, J. A., Jr., *520
Guinand-Doniol, J., 1122
Gusberg, S. B., 1516
Guthrie, F., *1067
Guy, W. B., 761

H

Habbe, J. E., 495
Häberlin, P., 1374
Hahn, R. C., 132
Haig, C., 839
Haldi, J., 138
Hall, A. F., 1022
Hall, H. E., *7
Hall, R. H., 1023
Hall, T. G., 1018
Hallberg, L., 930
Halpern, S. L., 397
Halse, T., 1290
Hamil, B. M., 676
Hamilton, J. E., 772
Hanchett, L. J., 1368
Hanselman, R. C., *551
Hansen, A. E., 926
Hanssen, P., 1454
Hare, H. F., 1210
Harell, A., *640
Hargreaves, E. R., 1371
Harken, D. E., 397
Harlin, H. C., *880
Harris, F. C., 600
Harris, H., 1370
Harrison, F. G., 844
Harrold, C. C., Jr., 1519
Harroun, J. E., 769
Hart, V. L., *1299
Harvey, W. P., 771, 771
Hauenstein, V., 496
Haughton, H., 1524
Hauss, W. H., 1214
Hawkins, V. R., 845
Hawthorne, H. R., 1522
Haymaker, W., 597
Head, J. R., 139
Heard, B. E., 1031
Heaton, L. D., 923
Heaton, T. G., 841
Hedegaard, P., 1122
Hefke, H. W., 319
Heilman, F. R., *1223
Heinle, R. W., 599
Helander, S., 1525
Helman, J., 143
Helmholz, H. F., *625
Helz, M. K., 1029
Hemmeler, G., 1215
Henckel, H., 604
Henderson, E., 139
Henderson, E. L., *783
Henderson, H. E., 593
Henderson, J. L., 320
Henderson, J. W., 765
Hendricks, F. D., *4
Hendrix, J. P., 1448
Hengstmann, H., 1525
Henle, G., 1522
Henle, W., 1522
Henny, G. C., 771
Hentel, W., 1021
Hepner, W. R., 1522
Herbert, P., 500
Herbut, P. A., 593
Heroux, O., 318
Herrell, W. E., 497
Herrick, J. F., 137
Herring, J., 134
Hertig, A. T., 137
Hertzberg, G., 850, 850
Hertzog, A. J., 134
Herz, E., 839
Hess, R., 209
Hickam, J. B., 315
Hibbert, R. W., Jr., 1224
Hicks, C. S., 1212
Hilden, T., 1032
Hilding, A. C., 1204
Hilker, A. W., *741
Hills, A. G., 925
Hills, T. H., 773
Hind, H. G., 1212
Hinglais, H., 1121
Hinglais, M., 1121
Hinton, J. W., 317
Hoagland, R. J., *157
Hobaek, A., 850
Hocks, H., 143
Hodgson, C. H., *1223
Hoefer, P. F. A., *620
Hoffman, S. H., *721
Hoffmann, G. T., 497
Hogan, R. B., 1368
Holinger, P. H., *1229
Hollander, F., 842
Holle, F., 1034
Holling, H. E., 1453
Holman, C. W., 202
Holman, E., 140
Homburger, F., *350, 768
Horlick, L., 1448
Hornberger, E. Z., Jr., *535
Horne, G. O., 1288
Horton, B. T., 597, 1279
Horwitz, M., 207
Horwitz, W., 682
Hovsepian, D., 1020
Howard, J. E., 596
Howard, L. G., 317
Howard, P. J., 836
Howe, C., 1114
Howe, P. E., *1337
Howell, T. H., 602
Huddleston, O. L., 1020
Huffines, T. R., 203
Huggins, C., *11
Hume, D. M., 1025
Hunter, R. B., 1288
Hunter, W. C., 138
Hurtado, F., 144
Hussey, H. H., 681
Hyde, T. L., *805; (correction) 1268

I

Ingraham, N. R., Jr., 1115
Irons, J. V., 593
Iverson, R. K., 1207
Ivy, A. C., 1205

J

Jackson, F. S., 1284
Jackson, L. E., 676
Jackson, S. H., *154, 1281
Jacobson, L. O., *1390
Jaffe, H. L., *515
Jaffe, N., 768
Jahn, H. J., 322
Jaimet, C. H., 918
Jamar, J., 1290
Janeway, C. A., 927
Janowitz, H. D., 391
Jansen, M. G. W., 841
Jarrold, T., 845
Jeans, P. C., *177
Jeffrey, M. R., 1372
Jennings, M. A., 848
Jennison, M. H., 771
Jensen, E. V., *11
Jensen, V. A., 1216
Jephcott, C. M., 838
Jepson, R. P., 142
Jequier, M., 1215
Jimenez Diaz, C., 687
Johansen, F. A., 846
Johnson, J. B., *1
Johnson, K. D., 494
Johnson, L. G., 1518
Johnston, J. A., 836
Johnston, J. H., 838
Johnston, K. C., *1229
Johnston, W. L., *721
Johnwick, E. B., 1368
Jones, A. W., *884
Jones, C. M., *627
Jones, H. W., Jr., *228
Jones, T. E., 1367
Jones-Davies, T. E., 929
Jonez, H. D., 767
Jongkees, L. B. W., 931
Jordan, R. E., 924
Joyeux, R., 1291
Judd, E. S., Jr., 600

K

Kaldegg, A., 929
Kallio, K. E., 1213
Kammerer, W. H., *338
Kaplan, S. R., *160, 1447
Karlin, I. W., *732
Karliner, W., *431
Kasdon, S. C., *350
Katz, L. N., *160, 1448
Kaump, D. H., 396
Kay, A. W., 929
Kazmann, H. A., *1335
Keating, J. H., Jr., 315, *878
Keaton, A. G., 1208
Keeley, J. L., 1117
Keettel, W. C., 677
Kehne, J. H., 1368
Keith, J. D., *154
Kelsey, W. M., 396
Kennard, M. A., 1449
Kennedy, B. J., 1518
Kent, L., 842
Kergin, F. G., 770
Kerman, H. D., 1202
Kern, R., 394
Kersley, G. D., 1372
Kert, M. J., *721
Keyton, J. A., 592
Kiefer, E. D., 680
Kierland, R. R., 497
Kilborn, L. G., 595
Kimble, S. T., 315
King, B. G., 1022
King, E. Q., *1
King, H., *1052
King, M. J., 1203
King, T., 1211
Kinnear, T., 1288
Kinsell, L. W., 139
Kinsman, J. M., *5
Kipen, C. S., *1138
Kirmse, T. W., 678, 845
Kirsner, J. B., 1367
Kissen, M. D., 682
Klebanow, D., 143
Kleefield, E. A., 1445
Kleitsch, W. P., 1363
Klemperer, P., 1366
Klendshoj, N. C., 841
Klien, B. A., 765
Kling, D. H., *791
Kneeland, Y., Jr., *1303
Knudtson, K. P., 138
Koch, M. B., 206
Koets, P., 767
Kohari-Kucharik, J., 394
Konwaler, B. E., 1022
Koon, E. S., Jr., *1408
Koontz, A. R., 1113
Kopeloff, N., 1449
Kopp, H., 1375
Koprowski, H., 1026
Kositchek, R. J., *22
Kozlow, W. W., 918
Kozol, H. L., 679
Kracke, R. R., *1321
Kranenburg, W. R. H., 603
Kraus, S., 132
Krause, A. C., 1522
Krieger, J. L., *549
Krishnaswamy, N., 849
Kroger, W. S., *526
Krug, E. S., 1280
Krusen, F. H., 137
Krynski, S., 1290
Küstner, W., 209
Kuh, C., *631
Kully, B. M., 1203
Kuo, P. T., 836
Kurland, G. S., 1451
Kurland, L. T., *1470
Kwalwasser, S., 1209
Kyle, L. H., 1518

L

Lahikainen, E. A., 686
Laird, R. L., 1284
Lamphier, T. A., 1365
Land, F. T., 142
Landman, G. S., *4
Landy, S., 919
Lang, L. P., 1025
de Langen, C. D., 1374
Langley, W. D., *1333
Languille, M., 851
Lapidus, B., *1482
Laporte, J., 1215
Large, A., 1117
Largent, E. J., 1021
Laski, B., *154
Latham, D. V., *520
Lattimer, J. K., 204, 1116
Lauber, F. U., 842
Lawlor, J. J., 204
Lawson, R. B., 396
Leach, J. E., *346
Lear, H., *806
Leblanc, J., 318
Lederer, H. D., *617
Lee, R. S., 843
Lee, S. L., 1366
Leevy, C. M., 1020
Lefkovits, A. M., *1482
Leger, L., 687
Lehmann, J., 504
Lehrfeld, L., 1360
Lei, H. P., 595
Leikin, S., 1202
Leil, W. A., 920
Leme Lopes, J., 400
Lemere, F., 1023, 1209
Lemon, B. K., 396
Lenel, R., 1525
Lenhard, R. E., 500
Lepper, M. H., 681
Leppla, B. W., 1363
Lerche, C., 1454
Leslie, A., 391
Letterman, G. S., 846
Le Vay, D., 602
Levey, S., 769
Levin, H. G., *160
Levin, M. H., 391
Levin, M. L., *336
Levine, S. A., 202
Levy, A., 1374
Levy, M., 1452
Lewey, F. H., 1364
Lewis, C. N., *1, *4
Lewis, U. J., 205
Lewison, E. F., 1030
Ley, H. L., Jr., *217
Leys, D., 1211
Lian, C., 1454
Liavaag, K., 1213
Libenson, L., 1028
Liber, A. F., 768
Lieberman, G. E., 920
Lieberman, R., 316
Linazasoro, J. M., 687
Lincoln, E. M., 678, 845
Lind, J., *540
Lindert, M. C. F., *888
Lindsay, S., 1116
Lindström, B., 505
Linhart, W. O., 1020
Linton, R. R., 135
Lipp, R. G., 1369
Lisa, J. R., *552
Lister, L. M., *7
Logan, M. A., 837
London, A. H., Jr., *1232
Long, J. H., *358
Looney, J. M., 599
Lorber, J., 1031
Lovelady, S. B., 1283
Lowe, C. U., 396
Lowsley, O. S., 1521
Loxton, G. E., 602
de Luca, G., 774
Lundbaek, K., 1216
Lupton, C. H., Jr., 1281
Lushbaugh, C. C., 1367
Lyle, H. P., *865
Lynch, J. P., 1030
Lynch, M. J. G., 849
Lyons, C. K., *873, *1331
Lyons, J. B., *1
Lysaught, J. N., *532

M

MacArthur, P., 503
MacCarthy, D., 930
McCord, C. P., 1024
McCormick, W. J., 840
McCrumb, F. R., Jr., 1022
McCullough, N. B., *1473
MacDonald, G. R., *4
McDonald, J. R., 499
Macdonald, M., *346
McDowell, F., 928
McElrath, P. J., 200
McEnery, E. T., 318
McEwen, C., 1118
McEwen, F. J., *740
McGrath, D., 930
McGraw, J., 684
McGregor, A. L., 1453
McGregor, T., 593
Macgregor, T. N., 686
McGuff, P. E., 1283
McGuire, J., 496
Mach, R. S., 604
McIndoe, A., 685
MacKay, E. M., *1411
Mackie, T. T., 682, 1284
McKusick, V. A., *717
McManus, J. F., 204
McMorrow, K. J., 926
Macrae, J., 774, 1031
McVay, L. V., Jr., *1067, 1284
Madigan, D. G., 849
Madsen, V., 1289
Magee, H. E., 320
Magee, M. C., 1368
Mahon, H. W., 1116
Mahru, M., 1024
Malcolm, D. S., 1370
Mallet-Guy, P., 931
von Mallinckrodt-Haupt, A. S., 322
Malone, B. H., 1283
Maloney, J. V., Jr., *1383
Maloof, C. C., 838
Mandel, L., 1372
Manderson, W. G., 774
Manfredi, M. S., 851
Mann, T. P., 930
Mannheimer, E., 320
Markowitz, J., 1514
Marks, H. H., *1464
Marneffe, H., 400
Marner, E., 1213
Marquardt, C. R., 598
Marquezy, R. A., 774
Marriott, J. A., 761
Marshall, D. S., II, 836
Marshall, S. F., 680
Martin, J. B., *1250
Martin, J. K., 1370
Martin, R., 1215
Martin, W. B., *1420

Martland, H. S., Jr., *742
Marzullo, E. R., *1057
Masland, R. L., 396
Mason, H. L., 594, *1474
Mason, M. L., 928
Master, A. M., *1464, 1517
Mathieu, J., 931
Matis, P., 1291
Matthews, S., 1453
Mattos Pimenta, A., 1290
Mayer, G., 1374
Mayers, H., 1286
Maynard, L. A., *807
Mayr, E., 143
Mazzei, E. S., 208, 208
Mead, S., *640
Meads, M., 683
Melcher, G. W., Jr., *1303
Meleney, F. L., 678
Menof, P., 1213
Meredith, H. C., Jr., 1278
Merrill, J. P., 1519
Metzger, H. N., 1522
Metzger, W. I., 837
Micek, F., 931
Michaux, A. J., 603
Milhorat, A. T., 837
Millar, R. G., *554
Millen, R. S., 678
Miller, E. R., 677, 1517
Miller, G. G., 1287
Miller, H. C., 771
Miller, J. W., *792
Miller, R., 771
Milzer, A., *219
Mino, R. A., 1279
Mitchell, N., 1282
Modi, C. J., 1031
Moench, G. L., 683 (35)
Moll, G. H., 927
Money, W. L., 1119
Monnier, 1215
Monteiro de Barros, O., 1216
Moon, C. N., Jr., 1281
Moore, L. V., *805; (correction) 1268
Moore, M. T., 597
Moran Miranda, F., 604
Morris, A. A., 924
Morris, D., 1212
Morrison, J. T., 1286
Morrison, L. M., 494, 683
Mosberg, W. H., 1521
Moschcowitz, E., 768, *861
Most, H., *792
Mote, J. R., 831
Motley, H. L., 502, 1025
Moulton, G. A., 844
Moyar, J. B., 1027
Mueller, E., *640
Mueller, J. F., 845
Muir, A., 773
Mullers, J. B., 209
Mullins, W. L., 1029
Munoz, N., 851
Murdock, L. J., *721
Muri, J., 1214
Murphy, F. D., *427
Murphy, J. R., *884
Murphy, W. P., 673
Myers, P. W., *157
Myerson, R. M., *1336

N

Naegele, C. F., *355
Naftulin, H., *431
Naide, M., *968
Nardin, H. E., 1522
Narins, L., 203
Nassi, L., 1033
Neerborg, G., 1375
Nelson, H. G., 681
Nelson, J., *715
Nelson, P. A., 137
Nelson, R., *174
Nelson, W. J., 1369
Nesbit, R. M., *1317
Neuhauser, E. B. D., 1523
Neumann, P. H., 1525
Newcomb, R. V., 1210
Newman, H. W., 141
Nichol, E. S., 1456
Niedermeier, W., 208
Nissen, N. I., 1375
Nørgaard, K., 1033
Nogueira, D. P., 1216
Noordam, A. L., 505
Norcross, J. W., 398
Norman, L. R., 397
Norman, V. P., 1120
Norris, R. P., *740
Norton, R. J., *172
Norwood, W. D., 136
Novy, F. G., Jr., 838
Nutter, P. J., 1369

O

Oatway, W. H., Jr., 761
Öberg, G., 603
Oberhill, H. R., 500
Obrador, S., 1120
Ochsner, A., 772, 847
Oelbaum, M. H., 1524
O'Hollaren, P., 1023
Olansky, S., *4
O'Leary, P. A., 497
Oliver, C., 1033
Olney, M. B., 1517
O'Neill, D., 929
O'Neill, T. J. E., 397, 841, 1206
Oppel, T. W., 837
Oppenheimer, G. D., 203, *806
Oppermann, E., 504
Oram, V., 1375
Ordman, D., 399
Orr, B., 920
Orr, T. G., 1285
Osborn, L. A., *165
Oster, R. H., 1521
Osterman, F., 1447
Ottoman, R. E., *515
Outerbridge, T. S., 595
Owen, M. D., 1280

P

Pacella, B. L., 1449
Pack, G. T., 1519
Palm, S., 1121
Palmer, C. E., *1048
Palmer, W. L., 1367
Panico, F. G., *1308
Papanicolaou, G. N., *1308
Pare, J. A. P., 498, 1518
Parets, A. D., *653
Park, S. D. S., 142
Parker, R. T., *7
Parrack, H. O., 136
Parsons, H. T., 923
Patel, J. C., 1031
Patten, E. W., 394
Patton, H. S., *554
Paul, J. T., 1451
Paulino, F., 687
Payne, E. H., 1452
Peabody, G. E., 917
Peirce, E. C., II, *717
Pelner, L., 1017, *1334
Penberthy, G. C., *1420
Pence, L. M., 1210
Pennell, S., 840
Pereiras, R., 1277
Perry, S. M., *1332
Peterman, M. G., *728
Peters, G. A., 597
Peters, M. V., 918
Petersen, A. B., 138
Peterson, C. M., *1420
Peterson, E. T., *348
Peterson, J. C., 141
Peterson, S. S., 1021
Pfeil, E. T., 1521
Phemister, D. B., 593
Phillips, E., 1514
Pietri, 851
Pillsbury, P. L., 1203
Pinel, 1215
Pinkerton, H., 843
Pinotti, O., 1032
Place, E. H., 1207
Platt, R., 1371
Plauchu, M., 931
Plotke, F., 919
Poate, H. R. G., 1289
Pohl, J. F., 137
Poindexter, C. A., 1447
Polayes, S. H., *549
Polley, H. F., *1474
Pollitzer, R. S., 1208
Porte, L., 1215
Postlethwait, R. W., *1250
Power, M. H., 594
Prather, G. W., *1405
Pratt, E. L., *365, *432
Presley, S. J., 1451
Preston, F. W., 139
Preston, O. J., 499
Preto, V., 1290
Price, P. B., 921
Pütz, T. K., 932
Pump, K., 498, 1518
Pund, E. R., *1226
Purvis, J. D., Jr., 1029
Putnam, T. J., 839
Putney, F. J., *169
Pyrtek, L. J., 502

Q

Quastler, H., 771

R

Rader, B., 842
Rader, G. E., 682
Radlinger, C., 144
Raisbeck, M. J., 135
Rammelkamp, C. H., Jr., *151
Randall, J. H., 677
Randolph, T. G., 1365
Ransohoff, N. S., 1519
Rantz, L. A., 925
Rao, R. S., 848
Raper, A. B., 1371
Rawson, F. L., Jr., *717
Rawson, R. W., 1119
Reader, G. G., 917
Recant, L., 1025
Redner, B., 1282
Reed, E. S., 1202
Reed, S. C., *730
Reese, A. B., 676
Reeves, R. J., *873
Regan, F. D., *355
Regan, J. S., 398
Register, U. D., 205
Reh, E. P., 842
Rehn, E., 1290
Reid, J., 1032
Reingold, I. M., 1022
de Ren, G., 1122
Rennie, J. B., 142
Reveno, W. S., *1407
Rheingold, J. J., 844
Rhoads, P. S., 594
Rice, C. E., *1065
Rice, C. O., 919
Rice, E. C., *1402, *1459
Rich, A. R., 1024
Rich, J., 1516
Richman, A., 678
Ricketts, W. E., 395, 1367
Ridderbos, J. B., 1214
Riding, D., 1212
Rieffert, E., 1034
Riegel, C., 684
Rienhoff, W. F., Jr., 499
Rilliet, B., 210
Ripy, H. W., 141
Ritter, J. A., 1522
Robalinho Cavalcanti, L., 400
Robbins, E. D., 134
Robbins, G. F., *346
Robecchi, A., 1526
Robert, A. G., 1277
Roberts, J. E., 1020
Roberts, R. H., 498
Robertson, H. F., 682
Robinson, H. M., Jr., 1022
Robinson, M. W., 1367
Robson, H. N., 142
Roche, M., 925
Rockwell, F. V., *428
Roda, E., 687
Rodney, M. B., 1282
Rodriquez, J., 919
Roge, R., 687
Rohr, J. H., 594
Rojas, M., 851
Rollins, J. P., 1365
Romano, J., *469
Ropes, M. W., 204
Rose, B., 498, 500
Rose, H. M., 135, *1303
Rosemond, G. P., *358
Rosenbaum, F. F., 917
Rosenbaum, H., *1407
Rosenbaum, M., *617
Rosenblatt, M. B., *552
Rosenburg, M. J., *721
Rosenman, R. H., *160
Rosenthal, S. R., 1207
Ross, S., *1459
Roth, J. L. A., *802
Rotovic, A., 774
Rottino, A., 497
Roversi, L., 209
Rowe, S. N., 1027
Rowlands, E. N., *627
Rowntree, G. E., 924
Ruben, J. E., 679
Rubin, H. J., 1203
Russek, H. I., *355
Russell, L. W., 1519
Russell, S. J. M., 503
Ryan, C. M., 1020

S

Sacks, M. S., 496
Sadoul, P., 1122
Saigh, R., *538
Salcedo, J., Jr., 600
Saldun de Rodriguez, M. L., 1373
Saltzman, S. L., 839
Salvioli, G., 1374
Samsøe-Jensen, T., 1375
Sancetta, S. M., 1205
Sandler, B. P., 1205
della Santa, R., 604
Samson, P. C., 923
Sanford, H. N., *1420
Santo Tomas Cobos, E., 1121
Saphir, O., 1116
Sapirstein, L. A., 683
Sargent, J. C., 598
Sarnoff, L. C., *1382
Sarnoff, S. J., *1382
Savitsky, N., *431
Saxton, J., 843
Schack, J. A., *756
Schäfer, K. H., 594
Schaposnik, F., 208
Schaub, I. G., *520
Schelin, E. C., 200
Schenck, S. G., 501
Schenken, J. R., 836
Schiff, L., 680
Schilling, F. J., *785
Schlesinger, M. J., 315
Schlichter, J. G., 1525
Schloss, W. A., *804
Schmidt, C., 687
Schmitt, W., 688
Schneider, C. L., 918
Schnur, S., *969
Schoenbach, E. B., 496, *520
Schrek, R., 498
Schubert, G., 1374
Schulze, H. A., 926
Schumacher, G. A., *1059, *1146, *1241
Schwartz, A. S., 490
Schwartz, M., 1375
Schwartz, S. O., 1280, 1447
Schwemlein, G. X., 919
Scott, J. W., 677
Scott, R. B., *1
Scott, W. G., 140
Scudder, B. C., 136
Seabrook, D. B., 1119
Seal, J. R., 681
Seed, J. C., 596
Seidler, K. H., 932
Seifert, E., 1373
Selye, H., 318, 685
Seneque, J., 1033
Senter, W. J., *174
Sesti, A. G., 774
Sette, A., Jr., 1290
Seys, H., 400
Shaffer, B., 201
Shallow, T. A., *169
Shambaugh, P., 678
Shaw, C. R., 1368
Shaw, G. E., 1212
Shefts, L. M., 1021
Shenkin, H. A., 201
Sherman, R. S., 1283
Shlaes, W. H., *794
Siegel, M., 1368
Sigg, K., 688
Signorelli, S., 851
Sigurjonsson, J., 494
Silrala, U., 686
Silver, S., 768
Silverman, F. N., 1523
Silverthorne, N., *154
Simon, N., 1519, 1519
Simonton, K. M., 319
Simpson, T. W., 1284
Simrock, W., 1214
Sinclair, W. K., 601
Sirota, J. H., 395
Skinner, H. L., 1207
Slattery, L. R., 317
Slaughter, G. P., 836
Smadel, J. E., *217
Smets, W., 1373
Smiley, D. G., *430
Smith, A. N., 929
Smith, C. C. W., 1122
Smith, G. V., 1285
Smith, G. W., 1521
Smith, J. K., 923
Smith, M. H. D., *1405
Smith, R. H., *965
Smith, R. R., 138
Smith, S., III, 1519
Smith, W. E., 201
Smith, W. H. Y., 846
Smith, W. S., 317
Smyth, C. J., 769
Sneeden, V. D., 138
Snelling, C. E., *154
Snow, H. L., 1449
Snow, W. G., 767
Soffer, L. J., 1118
Sokolow, M., 1204
Solari, E., 322
Sole Sagarra, J., 850
Solms, H., 144
Soloff, L. A., *225
Solomkin, M., *804
Solomon, P., *1460
Som, M. L., 398, 1208
Somerfeld-Ziskind, E., *1460
Sommers, S. C., 137
Sonne, L. M., 1375
Sorrel, A., 1034
Sorsby, A., 503
Southworth, J. L., *717
Sparkman, R., 206
Speck, G., *357
Speert, H., 676
Spencer, I. O. B., 1371
Spicknall, C. G., *1470
Spies, T. D., 206, 208, 321
Spink, W. W., 1026
Sprague, G. F., III, 1023
Sprague, R. G., 594
Sproull, D. H., 1032
Sprunt, D. H., *1067, 1284
Squire, J. R., 773
Stadnichenko, V., *1402
Staemmler, M., 504
Stallworth, J. M., *1250
Stamler, J., 1448
Stammers, F. A. R., 1289
Stanbury, S. W., 1371
Stanford, R. L., 498, 1518
Stanford, R. W., 773
Stark, J. D., 313
Stauffer, H. M., 396
Stein, T., 599
Steinberg, I., 502
Stellar, L. I., 1278
Stender, A., 1454
Stephens, F. D., 321
Stephens, H. B., 1517
Sterling, K., 395
Stevens, G. A., *1138
Stevens, S., *1459
Stewart, R. H., 845
Stieglitz, E. J., 315
Still, H., 498
Stoddard, F. J., 134
Stokes, J., Jr., 1522
Stokinger, H. E., 1023
Stone, R. E., 206, 208, 321
Stone, T. T., *1154, 1449
Storer, E. H., 1286
Strade, H. A., *1409
Strang, C., 1371
Strauss, J., Jr., 1525
Street, D. M., *709
Stroebe, F., 1216
Suchett-Kaye, A. I., 1288
Sureau, B., 1215
Susman, E., 399
Sutherland, A. W., 1212
Sutton, D., 1287
Svec, F. A., 594
Sweany, H. C., 318
Switzer, J. L., 1447

T

Taggart, S. R., *4
Talkov, R. H., 204
Taniguchi, T., *427
Tanret, P., 851
Tanturi, C. A., 317
Tapie, J., 1215
Tasman, A., 505
Taylor, A., 1028
Taylor, S. G., III, 139
Teilum, G., 1289
Telo, W., 209
Teloh, H. A., 928
Tempel, C. W., *943
Terry, L. L., *1470
Thacker, E. A., 920
Theis, F. V., *551
Thelin, F., 208, 1122
Theodore, F. H., *226
Therien, M., 318
Thibaudeau, R., 598
Thiele, W., 1121
Thomas, E. B., 1203
Thomas, E. W., 919
Thompson, H. T., 205
Thompson, S. A., 135
Thorn, G. W., 925, 1025, 1519
Thuilliez, A. C., 932
Thurnher, B., 210
Thygesen, P., 1122
Timberlake, L. F., *174
Timmerman, W. A., 505
Tinker, M. A., *362
Tisdall, F. F., 1281
Todd, G. M., *21
Todd, R. L., 1281
Top, F. H., 926
Torpin, R., 200
Torres, C., 143
Traenkle, H. L., *429
Trias Pujol, J., 1032
Troell, L., 930
Trommald, J. P., 1119
Tschumi, H., 1122
Tsevrenis, H., 932
Tsopellas, V., 1213
Tummers, J. C., 1214
Tupper, W. E., 1367
Turell, R., *894
Turin, R., 1282
Turner, G. C., 318
Tuttle, R. L., 1284
Twedt, R. M., 1027
Tyson, T. L., 1520

U

Ulett, P. C., *960
Ulrich, C. W., *893
Ungley, C. C., 399
Urquiza, P., 1120

V

Vaden, E. B., *1402
Vaksvik, P., 932
van Assen, F. J. J., 1374
Vandenbroucke, J., 1290

van der Ghinst, M., 504
Vander Veer, J. B., 836
Van Duine, H. J., *175
Vega Diaz, F., 1453
Venkataramanan, K., 849
Vergara, L. G., 673
Verhage, J. C., 931
Vermehren, E., 1375
Vermehren, M., 1375
Vernant, P., 851
Vernon, S., *799
Videbaek, A., 1032
Vierheilig, E., 1034
Viets, H. R., 391, 601
Viking, B., 400
Vilter, R. W., 845
Voegtlin, W. L., 1307
Vogt, A., 208
Volini, I. F., *794
Volpe, A., 1373
de Vries, A., 1525

W

Waife, S. O., 316
Wakim, K. G., 597
Waldbott, G. L., 490
Waldman, S., 1017, *1334
Walker, A. H. C., 1453
Wallace, D. M., 601
Wallmark, I. G., 848
Walter, J., 685
Walters, W., 1117
Walther, T., 505
Walton, R. J., 601
Wammock, V. S., 1115
Wannamaker, L. W., *151
Ward, B. C. H., 321
Ward, J. V., 1028
Ward, W. E., *631
Ware, H. H., Jr., 200
Ware, P. F., 1030
Warres, H. L., 844
Wartman, W. B., 494
Washington, J. A., *1459
Wassersug, J. D., 1197
Watkins, W. T., *1331
Watson, E. H., 1202
Watson, R. D., 1032
Watson, W. L., 138
Watts, S. G., *635
Waxler, S. H., *736
Weaver, R. T., 918
Weber, W. D., 203
Weil, A. J., *430, *1135
Weinberg, T., 1030
Weiner, J. G., 1197
Weinstein, V. A., 842
Weisbrod, F. G., 680
Weiss, A. G., 687
Weiss, E., 1206
Welch, H., *1, *4
Wellauer, J., 1373
Wells, E. B., 592, 592, 1207
Wells, H. S., 1282
Welton, D. G., *232
Wenzl, M., 210
Wergeland, F. L., *1133
Wespi-Eggenberger, H. J., 1034
Wessler, S., 315
Wester, M. R., *358
Wheelock, M. C., 928
Whitaker, J. C., 845
White, P. D., 135, *1311
Whittenberger, J. L., *1383
Wichelhausen, R. H., 1363
Wicks, C. A., 841
Wiener, A. S., 205
Wightman, D., 1281
Wightman, H. B., 1368
Wilcox, C., 1364
Wildführ, G., 687
Wilkins, R. W., 1282
Wilkinson, J. S., 1029
Will, G., 1372
Williams, A., *1311
Williams, H. L., 1279
Willson, J. R., *358
Willumsen, H. C., 677
Wilson, H., 849
Wilson, J. E., 1121
Wilson, R. H., 1282
Wilson, W. W., 1367
Winkelman, N. W., 597
Winn, W. C., 200
Winsor, T., 1450
Witebsky, E., 841
Wittekind, D., 1525
Wittenborg, M. H., 1523
Wittenborn, W. F. J., 1028
Witz, J., 687
Wolarsky, W., *1135
Wolcott, R. R., 846
Wolf, A. M., *431
Wolf, S., 202, 596, *1396
Wolff, H. G., 202
Wolff, W. I., 1365
Woodhall, J. P., 772
Woodland, L. J., 503
Woodruff, C. W., 141
Woodward, E. R., 1286
Woodward, T. E., *7, *217
Woolner, L. B., 499
Workman, W. G., 761
Wright, H. H., 495
Wright, L. T., 837, 845
Wright, W. S., 396
Wyatt, J. P., 843
Wylie, E. J., 1285
Wynder, E. L., *329
Wynn, W., 138

Y

Yahn, M., 1290
Yannet, H., 316
Yannitelli, S. A., 317
Yapalater, A. R., *428
Youmans, J. B., 394, *1252
Young, E. J., 1204
Young, L. E., 497
Young, M. D., 141
Young, M. O., 1030
Young, W. C., *893

Z

Zabalaga Canelas, E., 1452
Zacharias, F. J., 601
Zak, G. A., 1453
Zepplin, M., 923
Zfass, I. S., 206
Ziegler, R. F., 502
Zimmerman, H. A., 1205
Zimmerman, S. L., *891
Ziskind, E., *1460
Ziskind, J., *1483
Zoll, P. M., 315
Zollinger, H. U., 604
Zuelzer, W. W., 918

INDEX TO PAGES

OF THE JOURNAL, ACCORDING TO WEEKLY ISSUES—VOLUME 143, MAY-AUGUST, 1950

Pages	No.	Date	Pages	No.	Date	Pages	No.	Date	Pages	No.	Date
1— 150	1	May 6	409— 514	5	June 3	783— 860	9	July 1	1129—1222	13	July 29
151— 216	2	May 13	515— 612	6	June 10	861— 942	10	July 8	1223—1298	14	Aug. 5
217— 328	3	May 20	613— 696	7	June 17	943—1040	11	July 15	1299—1382	15	Aug. 12
329— 408	4	May 27	697— 782	8	June 24	1041—1128	12	July 22	1383—1458	16	Aug. 19
									1459—1588	17	Aug. 26